Milestones Professional 2004

User Manual

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Getting Help

There are several help functions available to assist you in learning and using Milestones Professional.

Help Reference Information

Milestones Professional offers extensive reference information in an easy-to-use manner. The *Milestones Professional Help Topics* contains more detail than this manual.

To access the reference information, choose **Help** | **Milestones Professional Help Topics**. Browse the **Contents**, or search for keywords under the **Index** and **Search** tabs. Help is well organized and extensive, giving you precise answers and instructions.

Help while in a dialog box

If you are in a dialog box and need help, you can click on the question mark in the upper right-hand corner of the box. After clicking on the question mark, click on the section of the dialog box in question. A brief explanation for that function appears. Selected dialog boxes have *Help* buttons for quick access to relevant Help topics.

Tooltips

Position your mouse pointer over a tool on the toolbar and a tooltip will appear! A tooltip is a brief explanation of what that tool does without having to actually perform the function. Choose **Tools** | **Options** | **General** to customize the appearance of the tooltips display.

Movies

An easy and fun way to learn about Milestones Professional is to view the movies provided on the Milestones Professional CD. You can follow step-by-step instructions that take you through the basics and more. The movies can be watched directly from the CD or loaded onto your PC. (The movies can also be downloaded from KIDASA's web site: http://www.kidasa.com).

Or, choose **Help** | **Online Movies** to go to our movies page on our website.

Automation Help

Choose **Help** | **Automation Help** for everything you need to know for programming your own interface to Milestones.

Online Support

Choose **Help** | **KIDASA Online Support** for a list of useful links to our website, including the main support page, sample schedules, our online Q&A database, the latest news, and more.

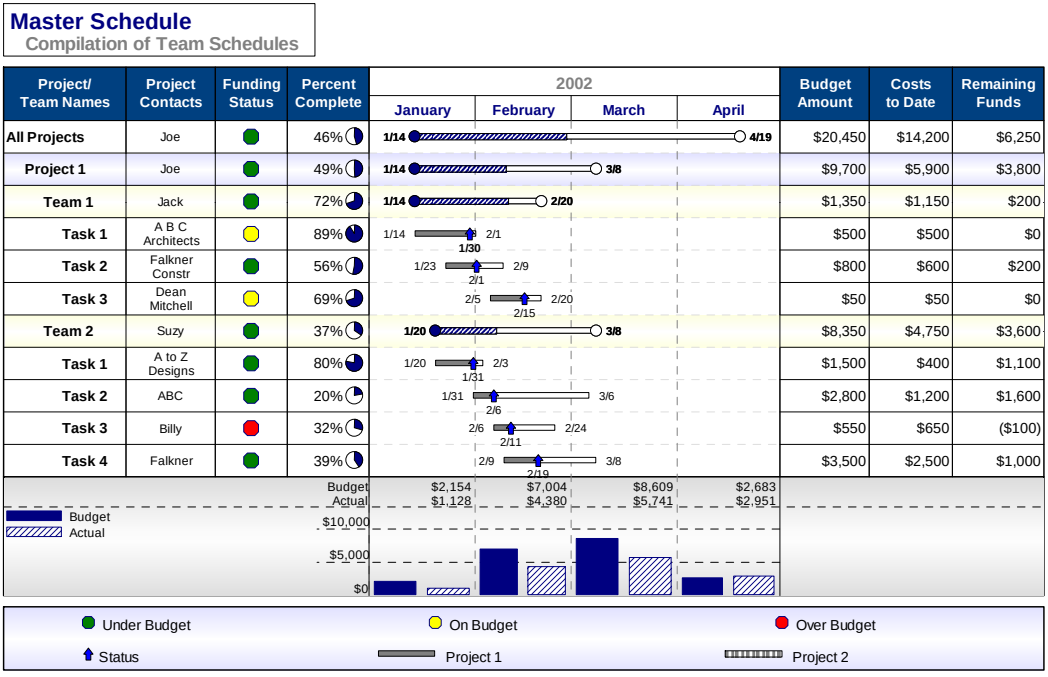
Chapter 1: Introduction

Easy yet Powerful Scheduling

Milestones Professional makes planning, organizing, communicating and tracking your projects fast and easy. Designed for anyone who spends time scheduling or managing projects, Milestones Professional makes fast work of your scheduling efforts.

Click-and-drag to build schedules

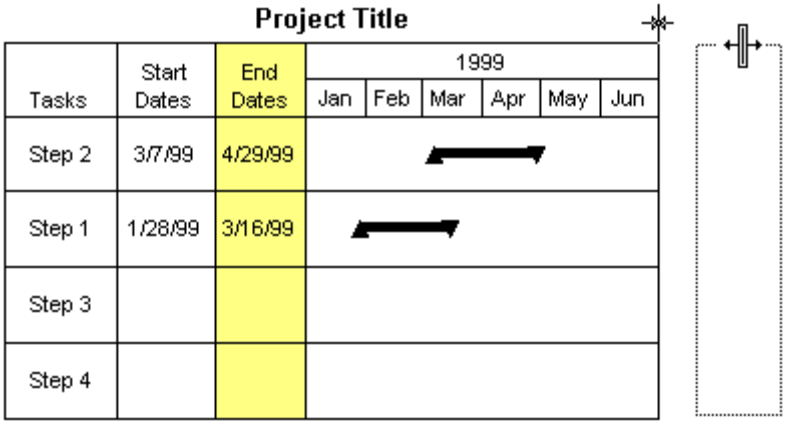
If you know how to use a mouse, then you can use Milestones Professional 2004. That's because Milestones Professional uses the same simple click-and-drag technique you're already familiar with. You can click-and-drag your way through even the most detailed projects in minutes!



Make changes in seconds

With Milestones Professional, you'll find that it's a breeze to update and change any existing schedule in seconds! Use ↖ to change a date, move a task line, and more.

Below, a column is being dragged from the left side of the schedule to the right.



Organize your schedule with outlining

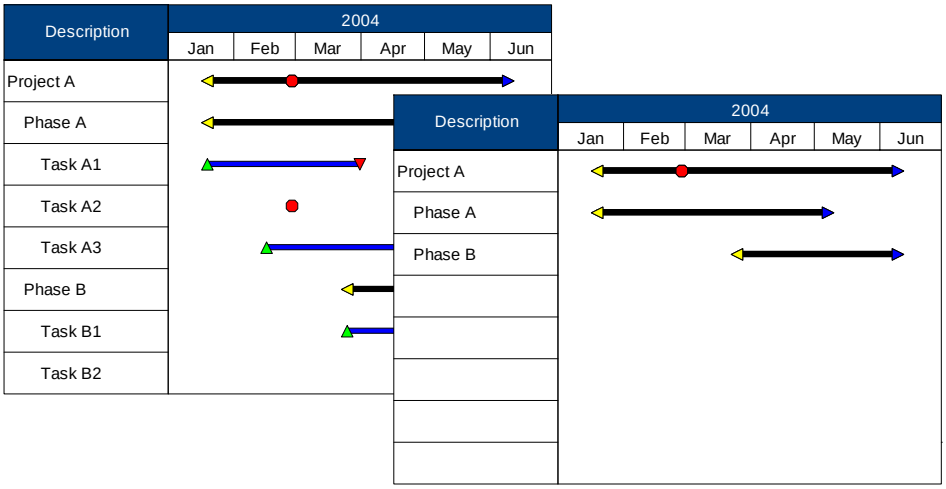
Milestones Professional offers an easy-to-use outlining capability. Organize projects into steps and sub-steps. Use outline level shading to highlight various levels and text. Override summary bar colors and symbology.

Outline Level	Task	2005 Jan	Feb	Mar	Apr	May	Jun
1	Project A						
2	Task A1						
2	Task A2						
3	SubTask						
3	SubTask						
1	Project B						
2	Task B1						
3	SubTask						
3	SubTask						
2	Task B2						

Switch between detailed and summary views

A click of the mouse is all that's needed to "roll-up" lower level tasks into a summary bar. Display single summary bars based on lower level dates; display lower level symbols and bars at the summary level; and select individual symbols to appear on summary lines.

The example below shows a schedule that has been “rolled-up” to the Phase level (outline level 2) by hiding all levels below. Additionally, Task A2’s milestone is rolled-up to the top summary level.



Work Breakdown Structure (WBS) and other task numbering

WBS numbering is used in conjunction with outlining. With a WBS SmartColumn, the WBS numbers appear automatically based on the outline levels.

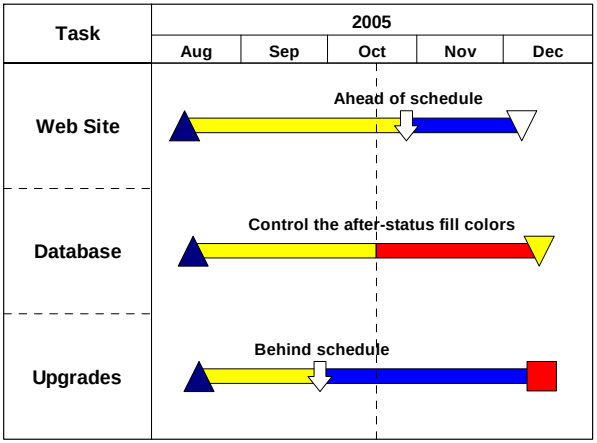
In this example, Task Number, WBS and Outline Level SmartColumns display numbers according to the outlined activities.

#	WBS	Outline Level	Description	2004 Jan	Feb	Mar	Apr	May	Jun
1	1	1	Project A						
2	1.1	2	Phase A						
3	1.1.1	3	Task A1						
4	1.1.2	3	Task A2						
5	1.1.3	3	Task A3						
6	1.2	2	Phase B						
7	1.2.1	3	Task B1						
8	1.2.2	3	Task B2						

Easily show progress

Fill connectors and symbols to show activity progress. Choose a color for the progress fill up to the status date, and a different color after the status date.

Individual tasks can be adjusted to reflect whether they are on schedule, behind schedule, or ahead of schedule.

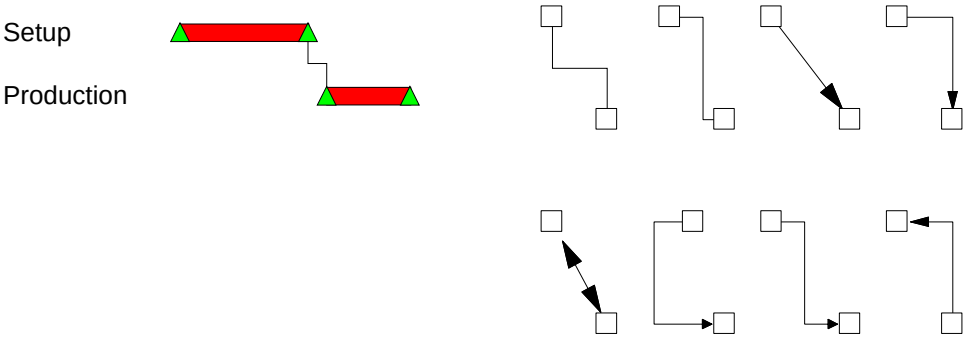


Dependencies

Easily create dependency relationships (predecessor/successor) between tasks. In the following example, *Production* cannot start until *Setup* is complete.

With dependency mode turned on, if the *Setup* end date is delayed, then the dependent task *Production* will shift by the same amount of time.

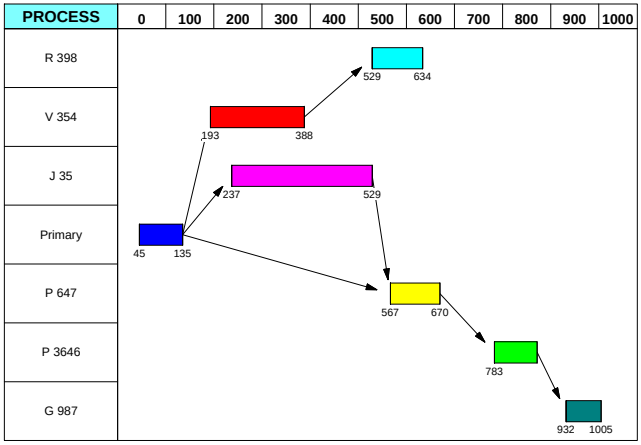
Tie the two steps together with a variety of connectors, just a few of which are shown here:



Up to 5 upward or downward "links" can be established from any symbol. This allows a manufacturing cycle schedule in which several processes are linked, as shown below.

With dependency mode turned on, when the start or end point for the “Primary” bar is moved, all the other bars will move by the same amount of time.

Machine Cycle Schedule

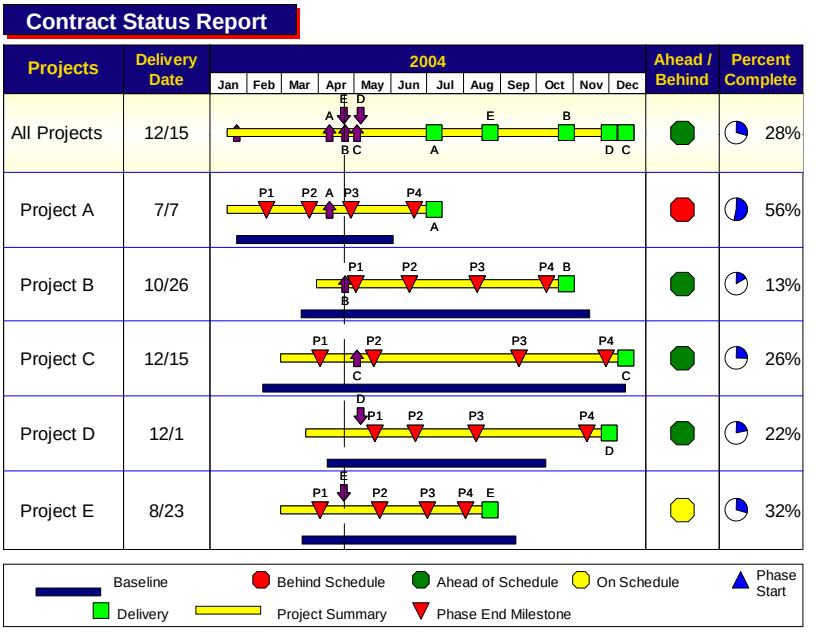


SmartColumns

Any column on your schedule can be set to a SmartColumn. SmartColumns automatically display information contained in your schedule or entered into the column, as well as make calculations, display stoplights and more.

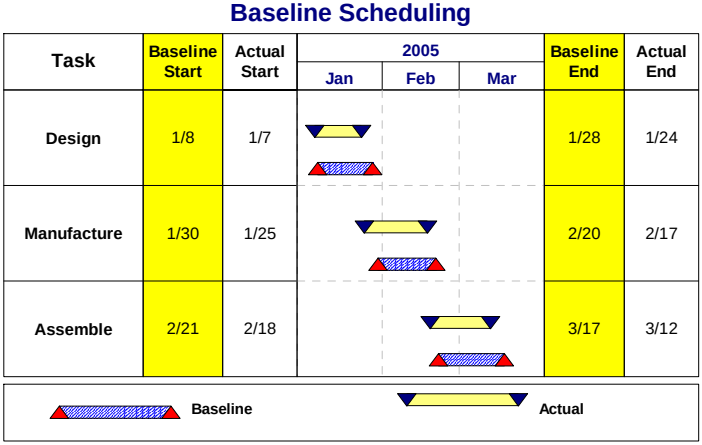
- Start Date
- End Date
- Percent Complete
- Duration
- Task Number
- Outline Level
- WBS Number
- Status Date
- Used Duration
- Remaining Duration
- Time Ahead/Behind
- Baseline Start Date
- Baseline End Date
- Baseline Duration
- ValueSet
- Values
- Symbol Count
- Calculation/Indicator
- Resource Allocation Percent
- Symbol Text
- Stoplight

The schedule below has an End Date SmartColumn ("Delivery Date"), a Values SmartColumn which displays stoplights for ahead/behind schedule, and a Percent Complete SmartColumn for progress values and pies:



Baseline scheduling

Baseline scheduling shows how the original schedule compares to the actual schedule. Quickly choose baseline symbology using the Baseline Setup Wizard. Then show, hide, highlight or lock-down the baseline information.



Symbol constraints

Any symbol can have a constraint which limits the symbol's movement or triggers a user-defined condition, such as displaying a reminder note or launching a hyperlink.

When the symbol is moved such that it does not conform to a date constraint that you have set, the symbol will be overlaid with a large exclamation point like the one shown below:

Choose from one of the following constraint types:

- Must be on this date
- No later than
- No earlier than
- Lock to this date
- Reminder: Display notes on this date - when you open your schedule on or after the constraint date, notes you previously typed to remind yourself of something will appear.
- Action: Launch first Hyperlink on this date. This constraint type could, for example, be used to start your e-mail program.

Holidays

You can make any day a holiday with the Milestones Professional Holiday Calendar. You also have the option to shade your company's holidays to show non-working days in a project. Holidays can be pulled from either a global holiday file or from a list embedded in the schedule.

Powerful Publishing, Presentation and Distribution

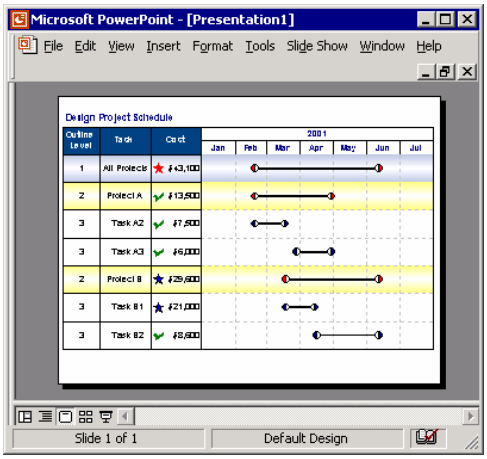
Milestones Professional offers many ways for you to distribute and present your schedules.

- Print your schedule to a variety of devices. Any printer that your operating environment supports can be used with Milestones Professional.
- Easily publish any single schedule for the Internet or company Intranet.
- Publish a complete hierarchy of schedules for Internet/Intranet use. The HTML pages generated come complete with images of your schedules and "hot spots" for hyperlinks to other schedules so that your customers can use their browser to view your published schedules and other hyperlinked documents.
- Include your schedules in other documents, such as PowerPoint presentations, Word documents, Excel spreadsheets, and other Windows documents.
- Milestones Professional's free schedule Viewer lets others view schedules you e-mail to them or save on your company's server.

Include schedules in other documents

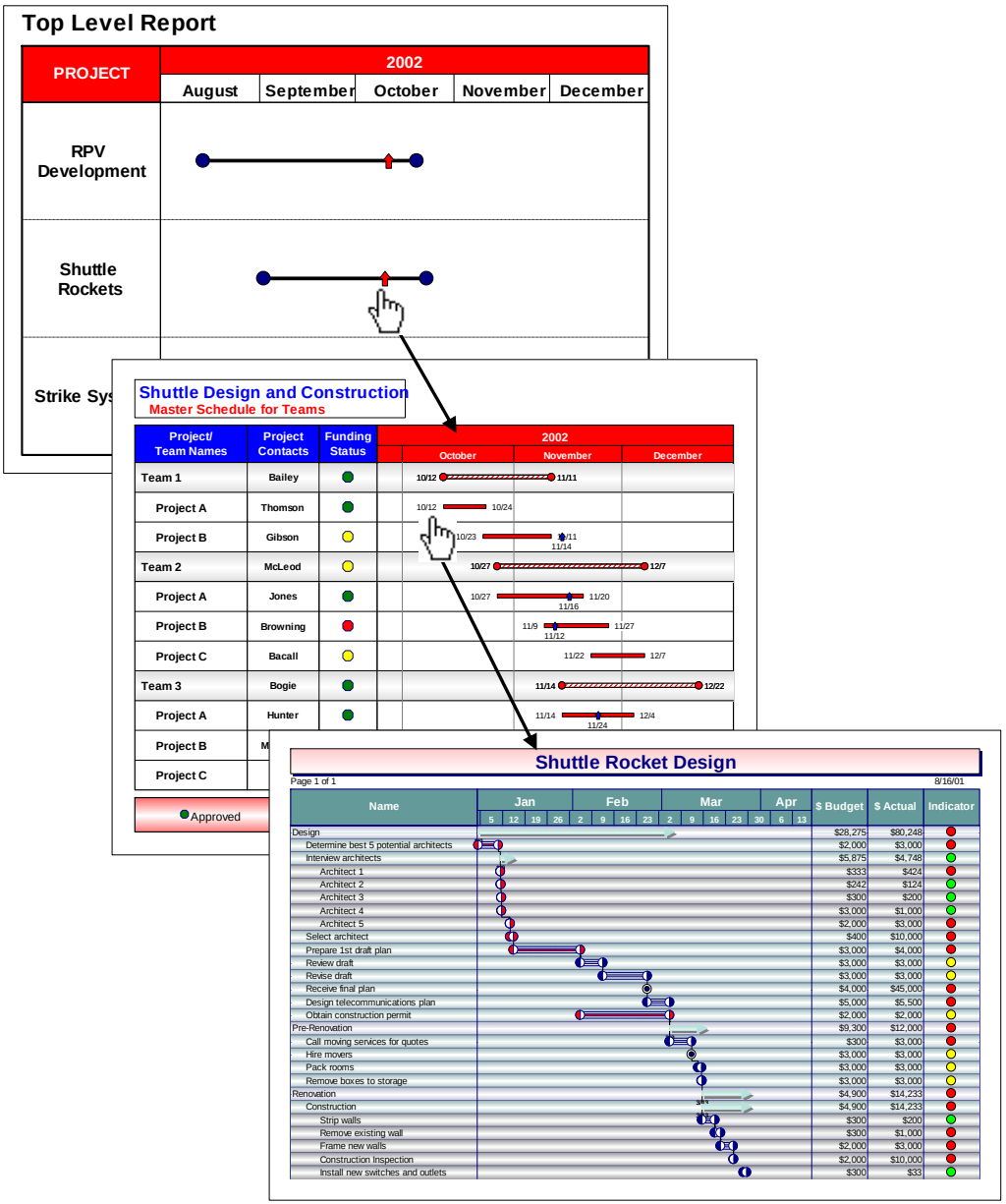
It's easy to include schedule pages in your presentations, reports, proposals, spreadsheets and more.

Just "copy" your schedule to the clipboard and "paste" into any other Windows application, such as Word, Excel, and PowerPoint. You can distribute these documents to others even if they don't have Milestones Professional on their system.



Publish a complete hierarchy of schedules

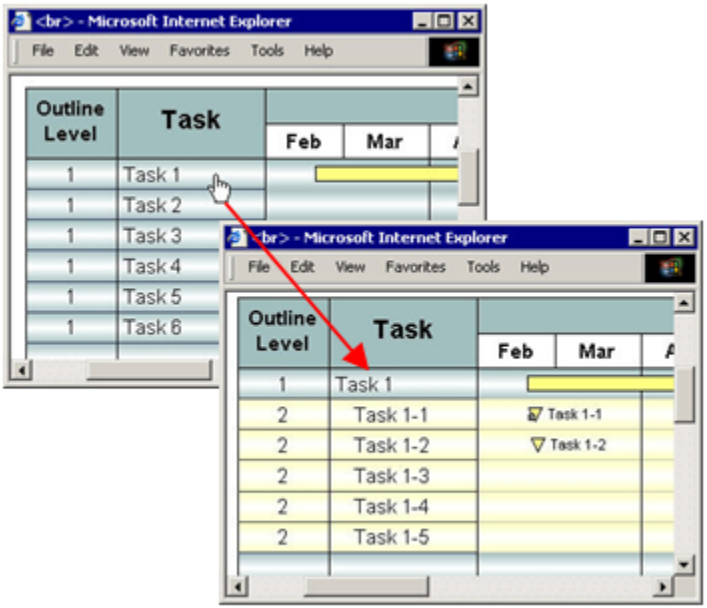
When schedules are linked using symbol hyperlinks, you can publish the entire sequence of schedules as web pages and schedule graphics. Using this "drill-down" capability, your customers, co-workers, or management can use an Internet browser to view a complete hierarchy of schedules that you generated at the push of a button.



Publish a summary schedule with drill-down

Use the "tiered hierarchy" Internet Publishing Wizard option to create an initial web page with all activities rolled-up to summary level.

Click on an activity in the web browser to drill-down to its details, as shown here:

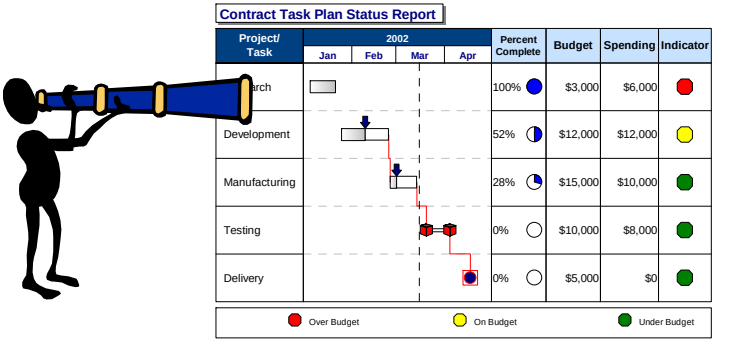


Free Milestones Viewer

For those who need to view and print a Milestones schedule without making changes to it, the Milestones Viewer is the perfect solution. A free Viewer is distributed with every copy of Milestones Professional. The viewer can be freely distributed to others who have a need to view schedules produced with Milestones Professional. The Viewer can also be downloaded from KIDASA's web site at www.kidasa.com.

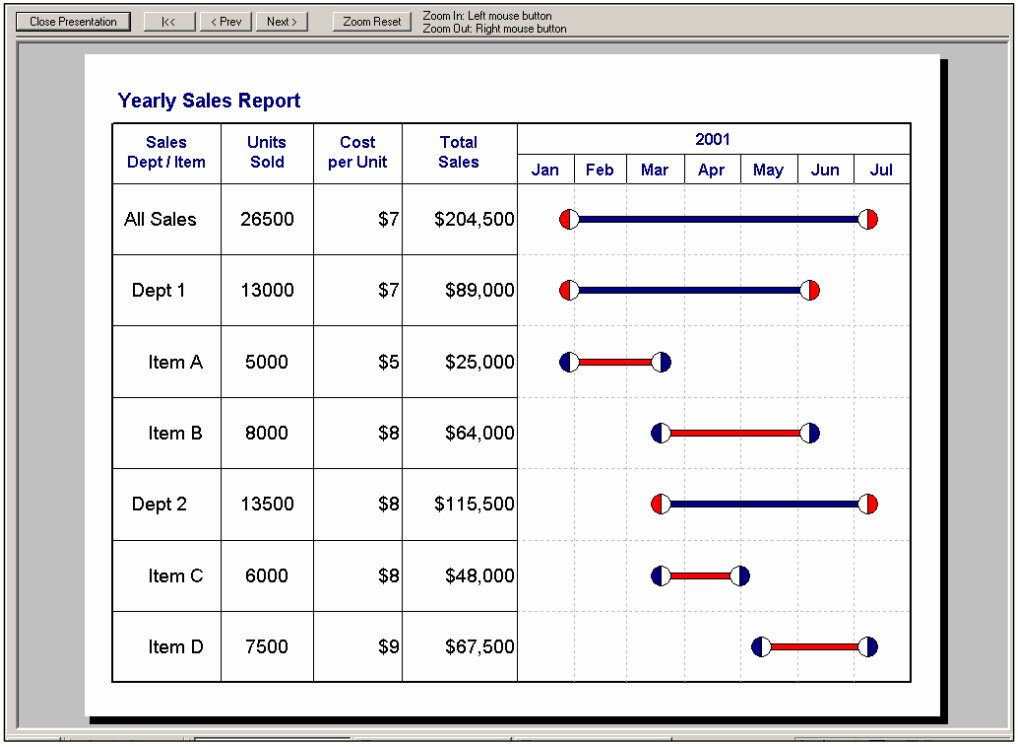
E-mail your schedule as an attachment or keep schedules in a shared folder. Use the Viewer to open the Milestones file to see the latest schedule update.

The viewer has many of the useful View menus available, including the Filter option. It also allows printing.



Presentation view

If you need to present a schedule or a set of schedules, you may want to try Milestones Professional's presentation view mode. If you have a list of schedules you want to present, set them up in a master schedule list before presenting. Presentation view supports both full screen viewing as well as a view with limited controls visible, as shown below:



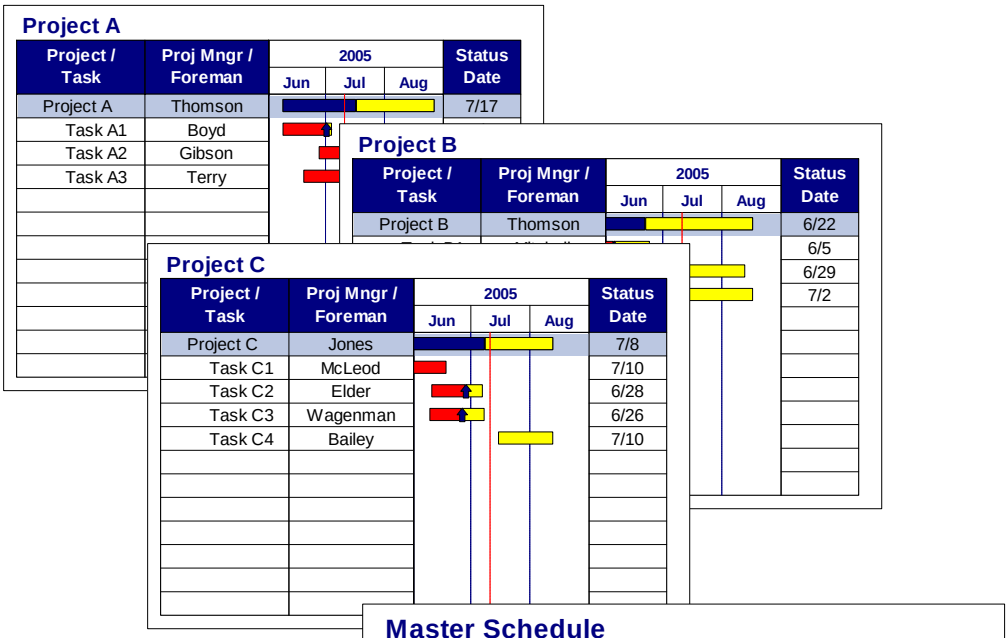
It also supports multi-monitor mode in situations where multiple monitors are being used and you want to have the presentation view cover all the monitors.

Manage Multiple Projects with Ease

Master schedules

Merge two or more sub-schedules into a single master schedule to get a top-level view of multiple projects. Simply update the master schedule to see the latest sub-schedule information. The sub-schedules can be on your computer, on a network server, or on someone else's computer.

In this example, three Milestones schedules for Project A, Project B, and Project C are each maintained by different managers....



...The manager overseeing the progress of all three projects sets up a master schedule which merges the three files into a single file.

When he needs to see the latest status on all three projects, he simply updates the master schedule with the latest data from Projects A, B and C.

Master Schedule

Project / Task	Proj Mngr / Foreman	2005 Jun Jul Aug	Status Date
Project A	Thomson		7/7
Task A1	Boyd		6/21
Task A2	Gibson		7/7
Task A3	Terry		7/7
Project B	Thomson		6/22
Task B1	Mitchell		6/5
Task B2	Gibson		6/29
Task B3	Terry		7/2
Project C	Jones		7/8
Task C1	McLeod		7/10
Task C2	Elder		6/28
Task C3	Wagenman		6/26

Symbol links between and within schedules

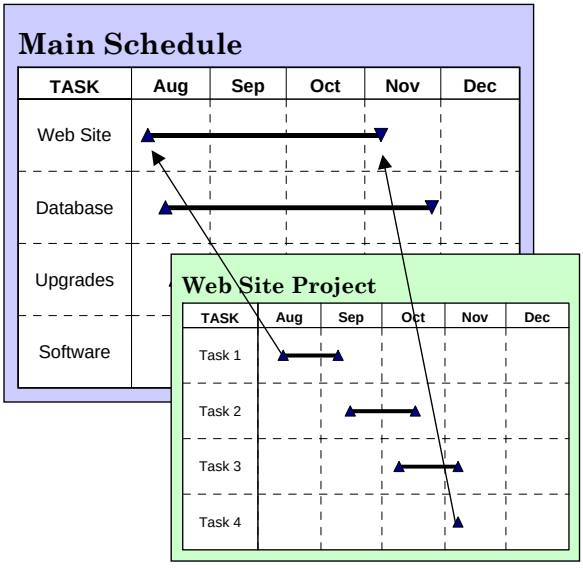
Another way to manage multiple projects is through symbol linking. Symbol linking lets you base the date of a symbol on a different symbol in another schedule or the same schedule. That is, if the date of the control symbol changes, the date of the dependent symbol will change accordingly.

Let's say you are the person in charge of maintaining a "master" milestone schedule at your company. You frequently have to contact people in other departments to see if they are on schedule with the tasks they have been charged with. All you need from them is one date, say the date for a hardware deliverable. (Not the same as the “master scheduling system.”)

Using Symbol Links, you can link a symbol on your milestone schedule to a “named” symbol on one of your coworker’s schedules. Then, when you open your schedule, you'll have updated schedule information.

Symbol linking example

In this example, the schedule named Main Schedule is used to keep track of four projects. Main Schedule’s first task line, Web Site, is linked to another schedule. The start date for Web Site is linked to the first symbol in the schedule named Web Site Project. The end date on the Web Site task line is linked to the last symbol in the schedule named Web Site Project. When Main Schedule is opened, the start and end dates for the Web Site task line will be updated to reflect the dates in the most recently saved Web Site Project schedule.



Hyperlinks: Attach files and web pages to symbols and tasks

Any symbol or task line on your schedule can have hyperlinks to other schedules, documents or Internet web pages. Once linked, you can activate the objects with a click of your mouse. This lets you use a Milestones Professional schedule to manage your entire project world!

The “hub” schedule below shows only the milestone dates for a company’s projects. Each of the symbols has a hyperlink to another schedule, related document or an Internet address.

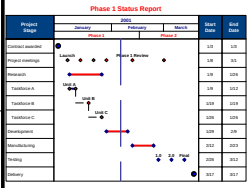
Link to web pages

Link to product specifications

Hyperlink Hub

PROJECT	2002				
	Aug	Sep	Oct	Nov	Dec
RPV Development	HW Design			Integration	
Shuttle Rockets	Design			Construct	
Strike System	Software			Integration	

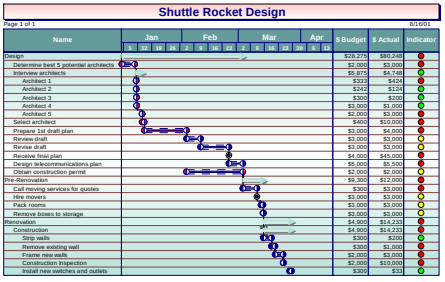
Link to a schedule status report



Link to a spreadsheet

	A	B
1	Phase	Cost
2	1	$30,000
3	2	$28,500
4	3	$50,850

Link to detailed schedules



Sorting tasks

Sort, or rearrange, schedule task lines based on column data or symbol dates on the schedule using these keys:

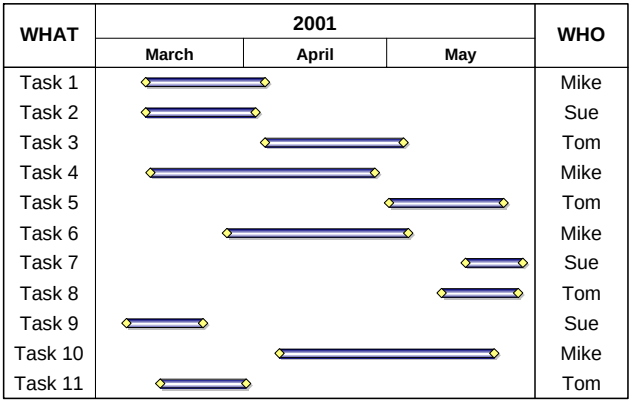
- The start date of each task
- The end date of each task
- Selected column (sort by text, numbers, currency, date, or WBS number)
- Multiple columns
- Selected task lines

Save multiple column or selected tasks sort settings for repetitive sort conditions.

Choose **Sort Tasks** under the **Tools** menu for your sorting options.

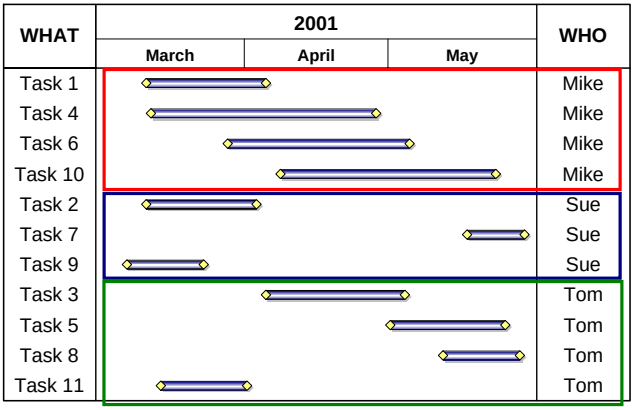
Using the schedule to the right, you would select the WHO column and use the **Using Selected Column** sorting option.

Schedule Before Sort



After sorting this column alphabetically by text, it's easy to see that Mike is overloaded during April, while Sue could take on more assignments—as shown in this schedule.

Schedule Sorted by WHO column



Filtering tasks

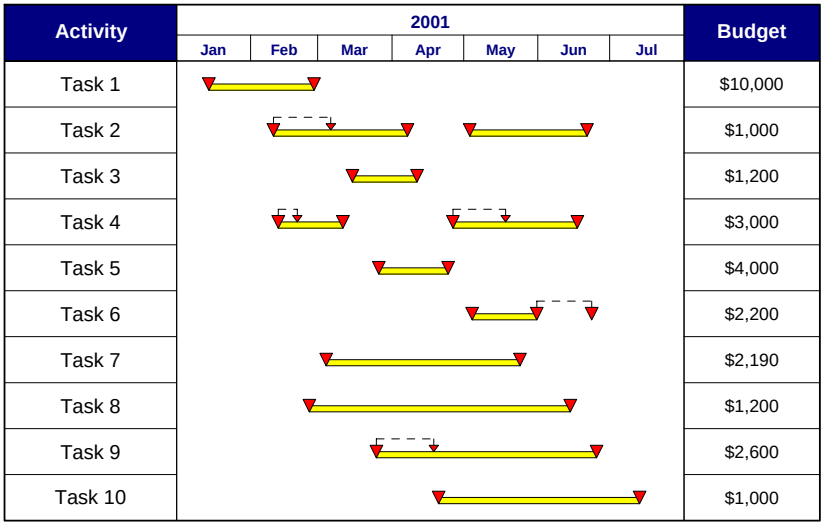
With large schedules, you might want to see only a subset of the project steps. Milestones Professional's filter feature allows you to "sift out" task lines by:

- Date range
- Task number range
- Outline level
- Column numbers less than
- Column numbers greater than
- Types of symbols and connectors

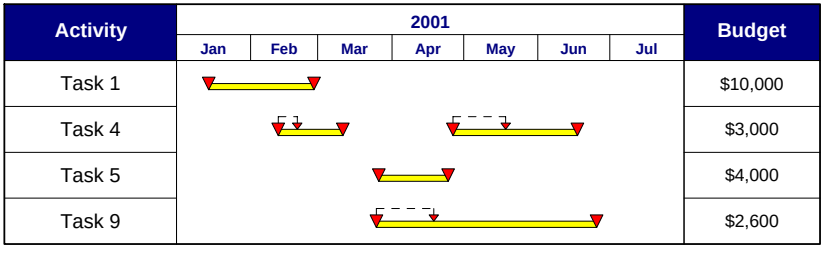
Further refine a filtered schedule by applying one or more successive filters.

In the example below, tasks whose budgets are greater that $2,500 are filtered and displayed in the second schedule, below. And, it's easy to revert to the original, unfiltered, schedule by choosing **View** | **Show All Task Lines**.

Wonderful New Widget



Wonderful New Widget **Tasks > $2,500**

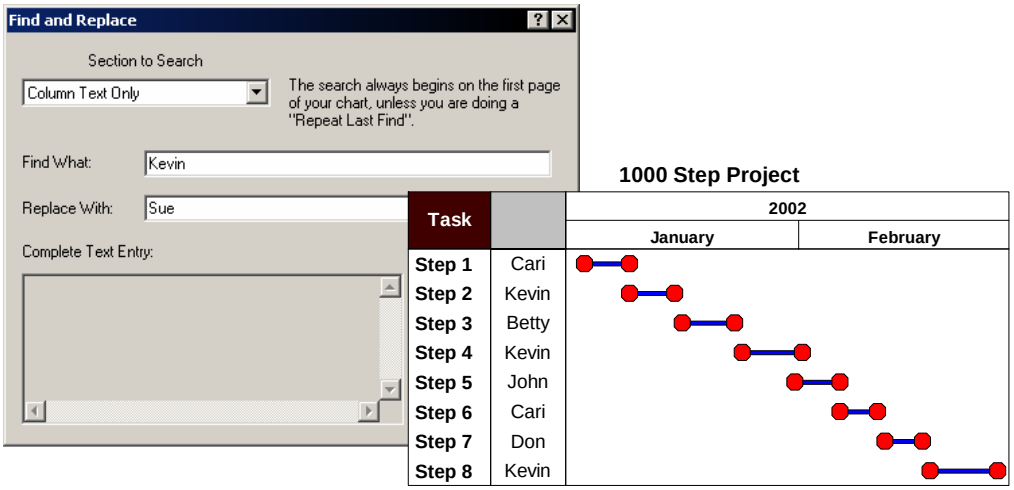


Find and replace text

Use Find and Replace to quickly make detailed text changes to large schedules. Apply Find and Replace to column text, freeform text, symbol notes, and symbol text.

Choose **Edit** | **Find and Replace** to launch the **Find and Replace** dialog box.

In the example below, Sue is taking over all of Kevin's tasks. Using *Find* "Kevin" and *Replace with* "Sue," the large schedule is quickly modified.



Your last Find and Replace is saved and can be accessed with **Repeat Last Find** under the **Edit** menu.

Bookmark task lines

Add a bookmark name to any task row and then jump to that task row by choosing the bookmark name from a list of bookmarks.

The task row which is "jumped to" will be highlighted. Especially helpful in large schedules, this feature allows you to quickly jump to specific schedule areas.

Bookmarked tasks can show indicators for easy identification.

Display Numbers and Project Status

Milestones Professional allows you to track and graph numbers, make calculations between columns, and display status stoplights for at-a-glance reporting.

Calculation/Indicator SmartColumns

A Calculation/Indicator SmartColumn can display calculation results; symbols, text or colors based on those results; symbols, text, or colors based on another column's values; or a combination of these choices, as well as convert calculation results to percentages with matching percent complete pies.

In the following example, “Budget minus Cost” is a Calculation/Indicator column. This SmartColumn subtracts the “Cost” column values from the “Budget” column values and then displays the calculated results.

The second function of this column is to display indicator symbols based on user-defined conditions. The green stoplight symbol appears when a cell’s value is greater than 0 (costs are under budget); the yellow appears when the cell’s value is equal to 0 (costs are on budget); and the red appears when the value is less than 0 (costs are over budget).

Contract Task Plan Status Report

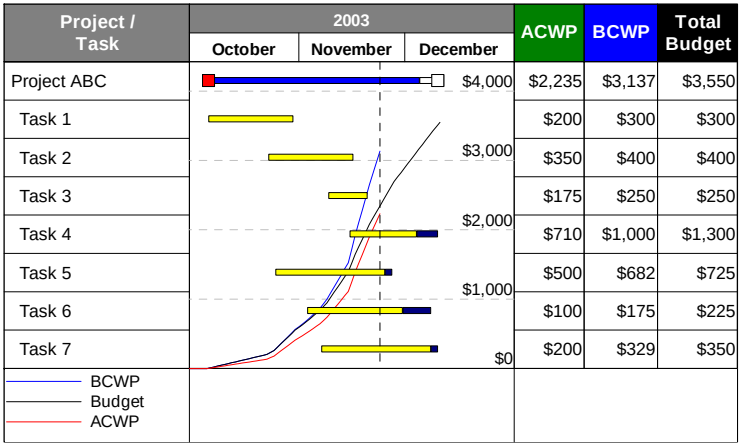
Project/ Task	2002				Cost	Budget	Budget minus Cost
	Jan	Feb	Mar	Apr			
Project Totals					$27,750	$28,000	$250
R & D					$16,250	$17,000	$750
Team 1					$5,000	$5,000	$0
Team 2					$11,250	$12,000	$750
Testing					$11,500	$11,000	($500)

Over Budget On Budget Under Budget

Earned value reporting

Produce earned value reports of BCWP, ACWP, cost, BCWS and other EVMS fields using user-entered values, calculated values, imported values from MS Project, or a combination of these options. Include graphs of these values for at-a-glance analysis.

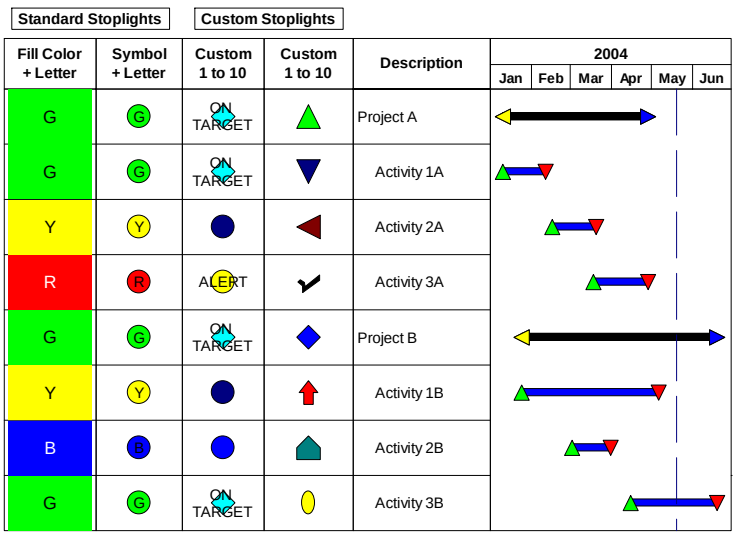
Earned Value Report



Stoplight SmartColumns

The Stoplight SmartColumn offers two easy-to-use methods for displaying stoplight symbols, text and colors based on user-entered numbers 1 to 4, or 1 to 10.

In this Stoplight SmartColumn sampler, the two columns to the far left use the Standard option of green, yellow, red, and blue symbols or color-fills with the optional letters. The other two columns use the Custom option of matching any symbol, color and text to numbers 1 to 10.



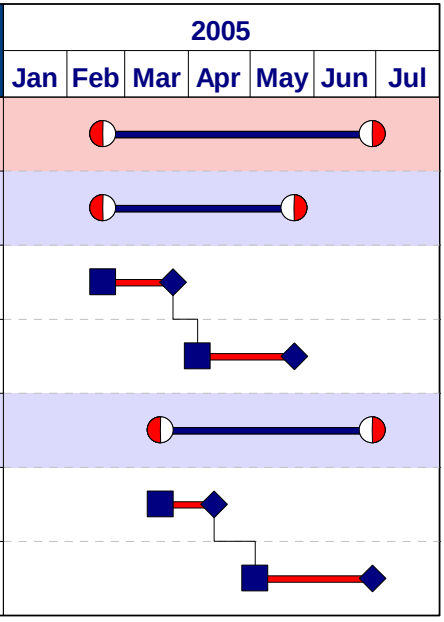
Values SmartColumns

A Values SmartColumn contains user-entered values and can automatically total values from lower task levels to upper, summary levels. A symbol can also be displayed according to the value in each cell.

In this example, Costs for Task A1 and A2 are automatically totaled and displayed in Project A's Cost cell. Cost values for Project A and Project B are automatically totaled and displayed in All Project's Cost cell. The symbols are displayed according to the values in each Cost column cell. The symbols and conditions are user-defined.

Additional options: show an average of lower level values instead of a total on summary lines; display the value as percent complete; add a % sign to the value; and override the summary line values.

Outline Level	Task	Cost
1	All Projects	$43,100
2	Project A	$13,500
3	Task A1	$7,500
3	Task A2	$6,000
2	Project B	$29,600
3	Task B1	$21,000
3	Task B2	$8,600



Percent complete pies and Fill-to-status

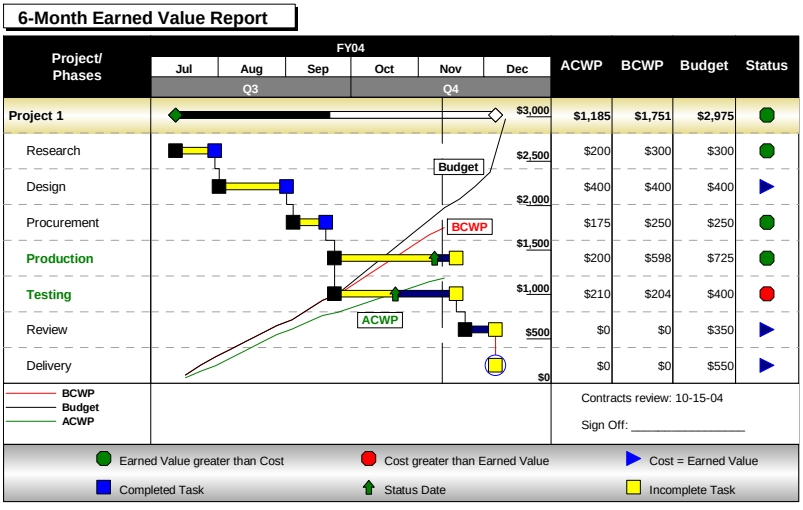
Percent Complete SmartColumns display the percentage, an optional percent complete pie, or just the percent complete pie, as measured by the status symbol (here, the arrow symbol). The completed milestones and completed portion of the connector bar are filled. The to-be-completed symbols and to-be-completed portion of the connector bars are filled with white or any color that is chosen.

Percent Complete and Status

Projects	2005 Jan	2005 Feb	2005 Mar	2005 Apr	Status Date	Ahead/ Behind	% Comp.
ALL PROJECTS					3/23	28d	71%
Project 1					3/25	6d	88%
Project 2					3/22	3d	78%
Project 3					3/16	-2d	47%
Project 4					3/25	7d	74%
Project 5					3/26	8d	76%
Project 6					3/26	7d	66%

DataGraphs and ValueSets

In addition to having powerful scheduling and tracking capabilities, Milestones Professional can also display graphs relating to the schedule. Up to three of these DataGraphs can be displayed; one DataGraph can be overlaid on top of a schedule. DataGraphs can be positioned below, on, or above the schedule. As many as eight value categories (ValueSets) can be graphed in one DataGraph.



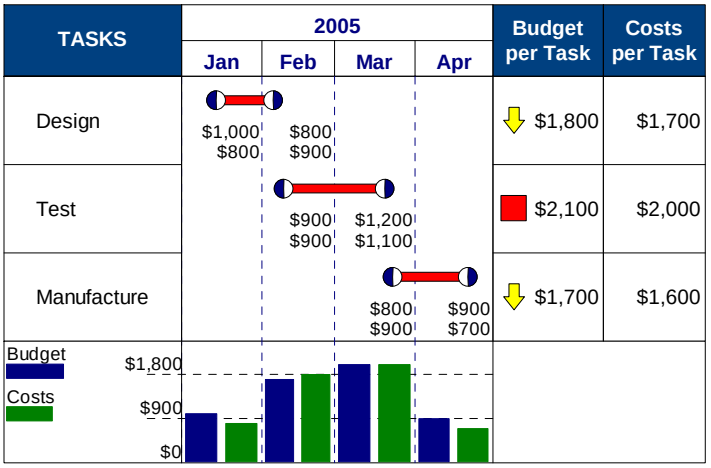
ValueSet SmartColumn

Not only can ValueSets be totaled and graphed by time period in the DataGraph, they can be totaled and displayed in a ValueSet SmartColumn.

In this schedule, the “Budget per Task” and “Costs per Task” columns are ValueSet SmartColumns.

Each column totals the values from a specific ValueSet for each task row.

For example, the “Budget per Task” column totals the “Budget” ValueSet entries for each activity.



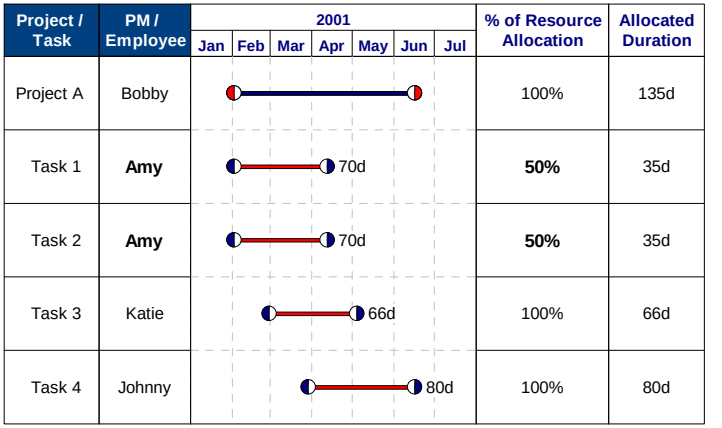
Resource allocation for effort-driven tasks

Control the effort of a resource assigned to a particular task by using a resource allocation percentage. The resource allocation value can be entered in the Resource Allocation Percent SmartColumn or in any cell on the appropriate task line.

In this example, Amy will be working on Task 1, 50% of the time, and Task 2, 50% of the time. This does not change the durations of the tasks, yet better indicates the resource’s effort needed to complete the tasks. Thus, the overall usage of this resource is 100% for this time period.

Here, the “Allocated Duration” column is a Duration SmartColumn. This column can be set to apply the resource allocation percent to the duration value or to display the normal duration value.

Resource Allocation for Duration Values



Create Presentation Schedules from MS Project Files

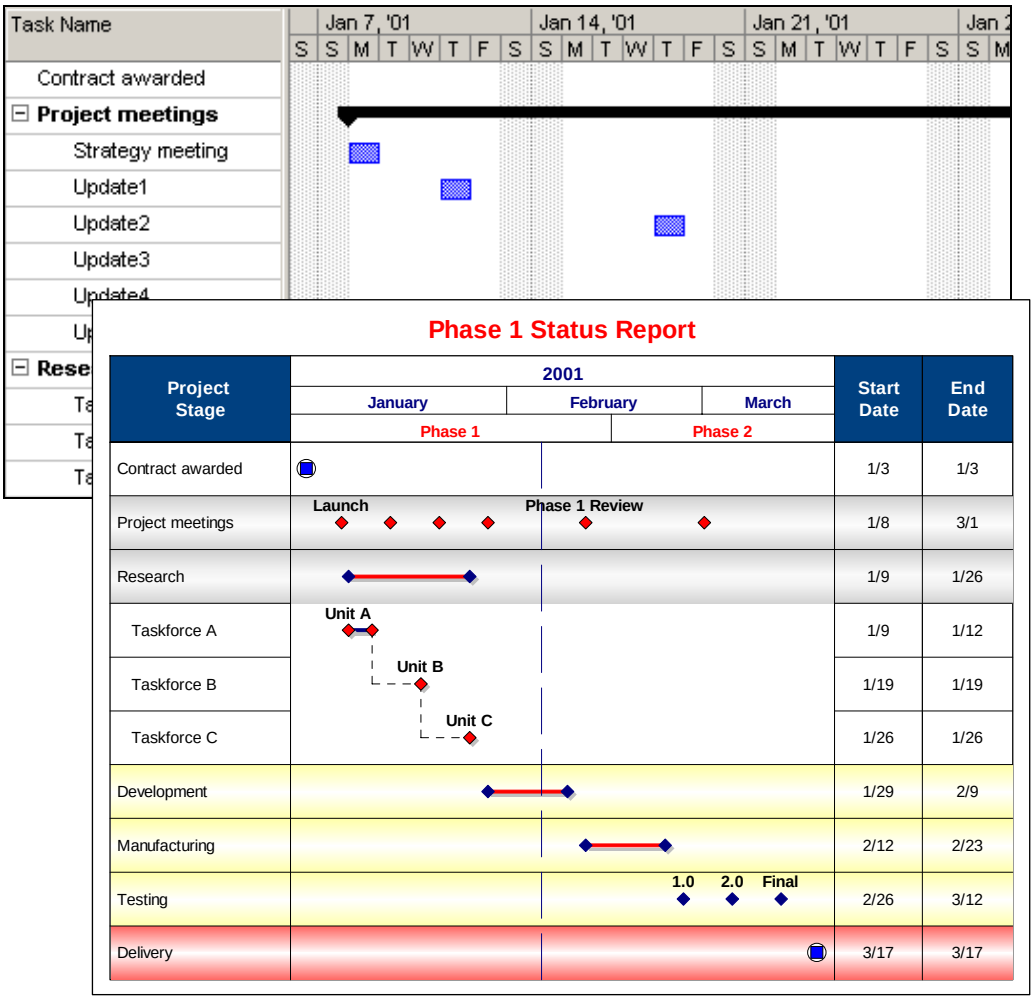
Create Milestones Professional presentation schedules by importing Microsoft Project files when both Milestones Professional and MS Project are installed.

Select from built-in report formats

Milestones Professional offers a direct interface to Microsoft Project, which makes it easy to generate chart formats beyond the standard formats offered by Project.

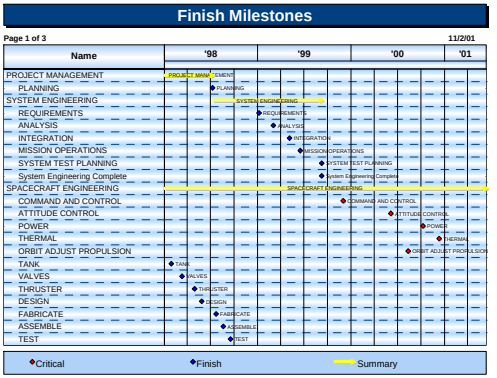
Select from built-in report formats or create your own presentation schedule format.

The import wizard does all the work!



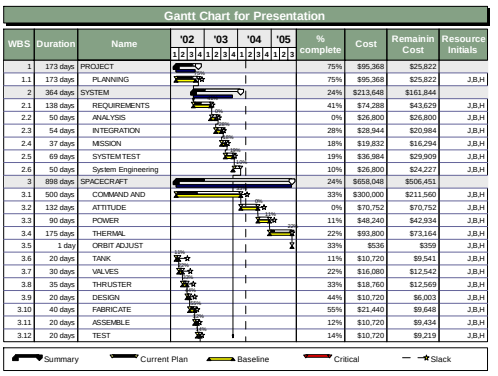
Choose from more than 35 built-in reports:

Milestone Charts



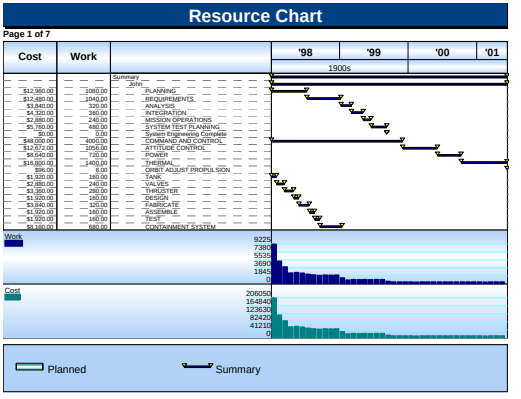
- Finish dates with summaries
- Milestone dates
- Progress status
- Cost status

Gantt Charts


Gantt Chart for Presentation
WBS
Duration
Name
'02
'03
'04
'05
% complete
Cost
Remainin Cost
Resource Initials
1 173 days PROJECT 75% $95,368 $25,822
1.1 173 days PLANNING 75% $95,368 $25,822 J,B,H
2 364 days SYSTEM 24% $213,648 $161,844
2.1 138 days REQUIREMENTS 41% $74,288 $43,629 J,B,H
2.2 50 days ANALYSIS 0% $26,800 $26,800 J,B,H
2.3 54 days INTEGRATION 28% $28,944 $20,984 J,B,H
2.4 37 days MISSION 18% $19,832 $16,294 J,B,H
2.5 69 days SYSTEM TEST 19% $36,984 $29,909 J,B,H
2.6 50 days System Engineering 10% $26,800 $24,227 J,B,H
3 898 days SPACECRAFT 24% $658,048 $506,451
3.1 500 days COMMAND AND 33% $300,000 $211,560 J,B,H
3.2 132 days ATTITUDE 0% $70,752 $70,752 J,B,H
3.3 90 days POWER 11% $48,240 $42,934 J,B,H
3.4 175 days THERMAL 22% $93,800 $73,164 J,B,H
3.5 1 day ORBIT ADJUST 33% $536 $359 J,B,H
3.6 20 days TANK 11% $10,720 $9,541 J,B,H
3.7 30 days VALVES 22% $16,080 $12,542 J,B,H
3.8 35 days THRUSTER 33% $18,760 $12,569 J,B,H
3.9 20 days DESIGN 44% $10,720 $6,003 J,B,H
3.10 40 days FABRICATE 55% $21,440 $9,648 J,B,H
3.11 20 days ASSEMBLE 12% $10,720 $9,434 J,B,H
3.12 20 days TEST 14% $10,720 $9,219 J,B,H
Summary
Current Plan
Baseline
Critical
Slack

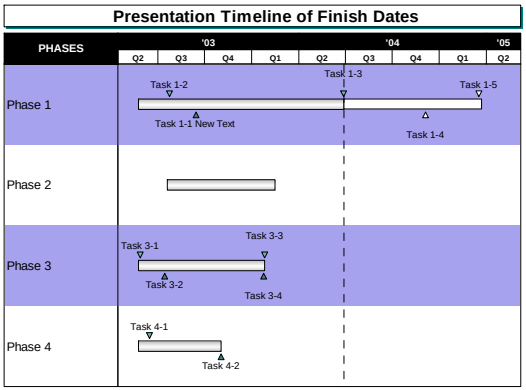
- Current plan
- Current + baseline plan
- Progress and cost status
- Critical tasks

Resource Charts



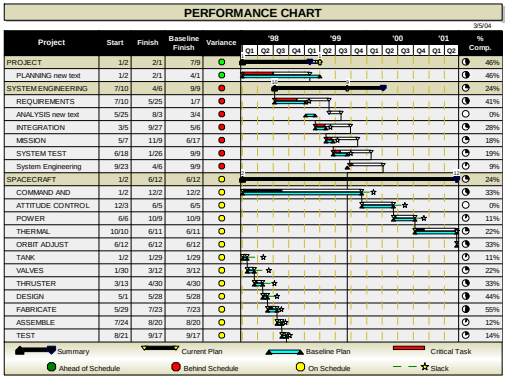
- Resource to-do lists
- Overallocations
- Single-resource to-do lists
- Resources + cost and status

Summary Charts



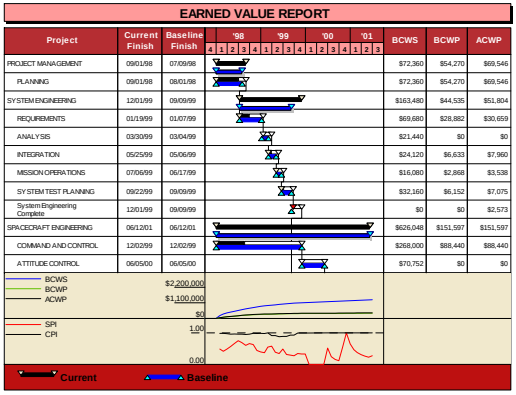
- Finish date roll-up summary
- Current and baseline status
- Progress and cost status
- Cost status with graph

Performance Charts



- Finish date variance
- Budget and work remaining
- Budget and cost
- Percent complete graph

Earned Value Charts



- A variety of reports with graphs including BCWP, ACWP, BCWS, costs, SPI, CPI, SV, CV and more

Create your own report formats

If the built-in report formats don't meet your needs, create your own presentation schedule format. Your custom format becomes part of the import wizard under the name you give it.

Refresh your presentation schedule with MS Project changes

Refresh (update) the Milestones schedule's symbol dates, symbol text, column values, percent complete, as well as add new tasks and highlight obsolete milestones, based on the latest information in the MS Project file that was used to create the Milestones Professional schedule.

MPX, CSV and TXT files

If Microsoft Project is not installed, then Milestones can open MPX, CSV, and TXT files created from MS Project.

Milestones Professional schedules can be exported to the MPX, CSV and TXT formats and then opened in Microsoft Project and other applications.

Work with your other Applications

Beyond the direct interface to Microsoft Project, Milestones Professional interacts with other applications in several ways.

You can copy and paste a Milestones Professional schedule into another application such as Word, Excel, and PowerPoint. The schedule can be a picture or an embedded or linked object. You can also "map" (copy and paste) information from another application, such as an Excel spreadsheet, into Milestones.

For programmers, Milestones Professional supports a complete Automation interface for using Visual Basic, C++ and other programming languages to interchange data programmatically with Microsoft applications such as Access, Excel, Project, and more. The programming that makes use of this automation feature is user-created.

Finally, your company may have existing schedule information in databases, spreadsheets or in other project management files. Milestones Professional can read information from other sources once the information has been written to a comma delimited file.

Many file formats supported

In addition to built-in interfaces for Microsoft Project, Milestones Professional offers a custom import capability. With the custom import feature, you can bring in information from other sources such as CSV and TXT files.

Turn a spreadsheet into a Milestones schedule

Getting schedule information into Milestones Professional from just about any other Windows software package is easy. Simply copy information from another application to the Windows clipboard, and then paste into Milestones Professional.

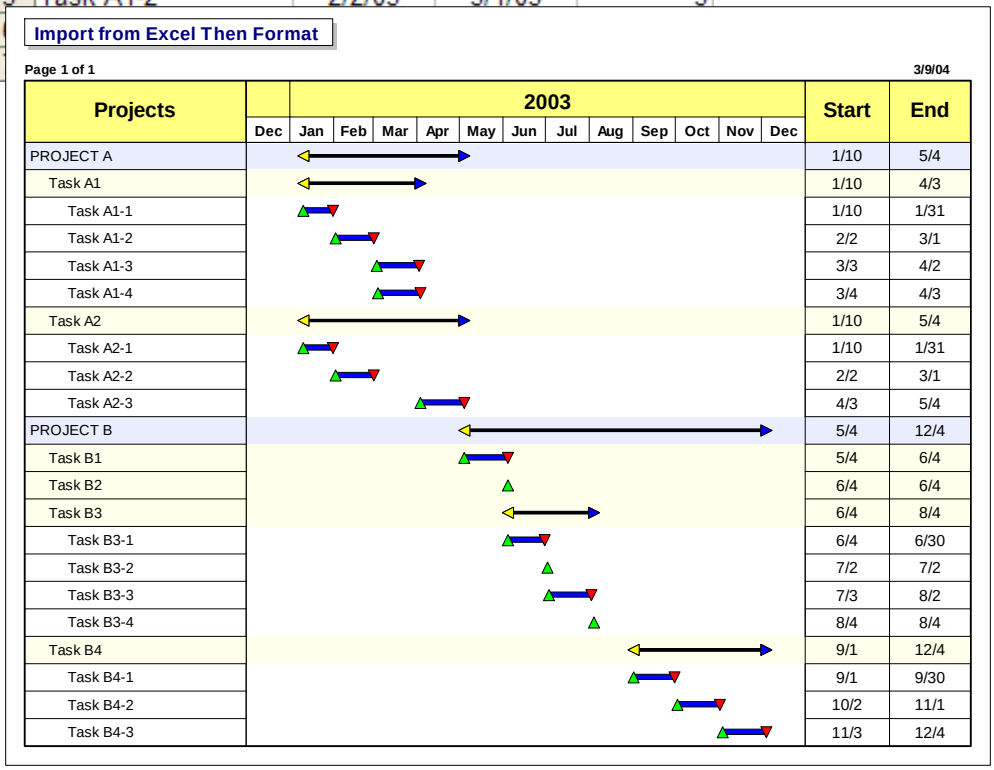
For example, you might have a spreadsheet like the Microsoft Excel spreadsheet shown here.

The spreadsheet shows task names, start dates, end dates, and outline hierarchy.

This information can be highlighted, copied to the clipboard, and pasted into your Milestones Professional schedule.

The result is an instant schedule!

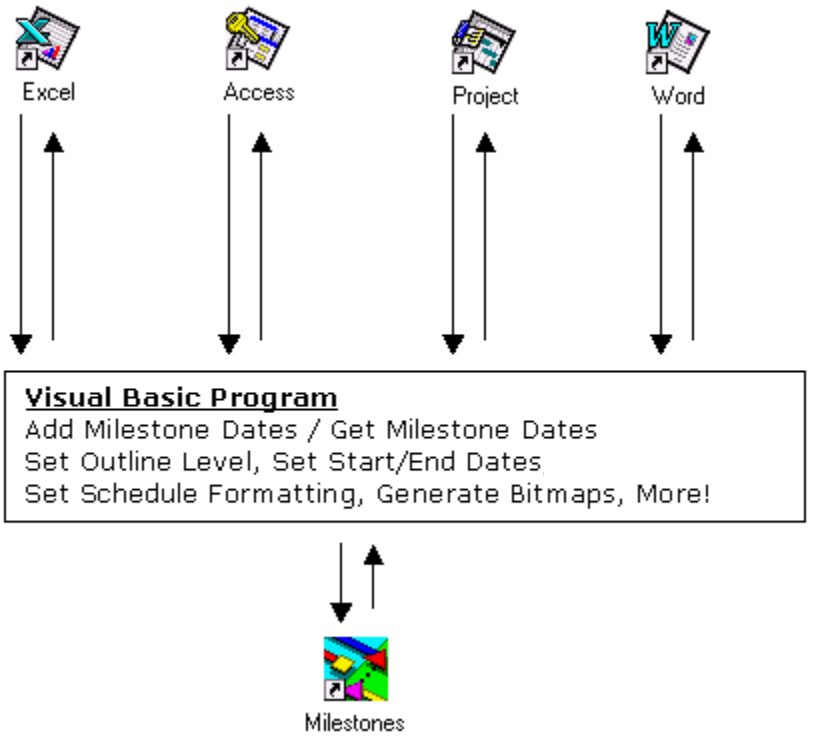
	A	B	C	D
1	**Activity**	**Start**	**End**	**Hierarchy**
2	**PROJECT A**			**1**
3	**Task A1**			**2**
4	Task A1-1	1/10/03	1/31/03	3
5	Task A1-2	2/2/03	3/1/03	3



OLE Automation

Using OLE Automation, a programmer within your company can build automated systems that include scheduling. Sample programs which demonstrate the use of this powerful capability are available on the www.kidasa.com web site. These sample programs show how Milestones Professional can be linked to Microsoft Access, Visual Basic, and C++ applications.

For example, schedule data that is stored in a central repository (such as Access, Artemis, Project, Oracle, SQL, Excel, Word, and more) can be extracted in order to populate a Milestones Professional schedule for presentation purposes. Schedule automation insures the integrity of the database and the accuracy of the presentation schedule.



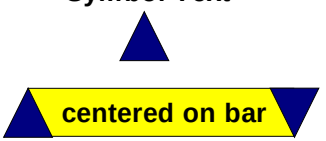
Automation Tag fields appear with symbols, free-form text, column headings, column cells and other schedule components. These fields can be used by Automation programs as a way of uniquely identifying and modifying specific schedule elements. These fields can be set and queried by Automation programs.

Extensive Text Entry and Graphics Options

Symbol text

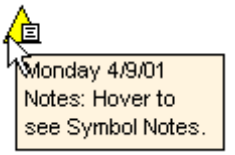
Enter up to three lines of symbol text. This text moves with the symbol. Position the text anywhere around the symbol or center it on the connector bar.

Automatically display the column text as text next to a symbol; or have the symbol text automatically display as column text.



Symbol notes

Enter up to 10,000 characters in the symbol notes field. This text is embedded in the symbol, and appears when the cursor hovers over the symbol. Optionally, a separate notes page prints with the schedule.



Freeform text

Type text anywhere on the schedule. Format the appearance of the text box. This text does not move with symbols or rows.

Column text

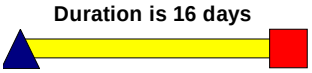
Use up to 20 columns to enter text, values, dates, and other schedule information.

Project/ Team Names	Project Contact	Funding Status	Percent Complete
All Projects	Kevin		46%
Project 1	Joe		49%
Team 1	Jack		72%

Substitutable text strings

Enter “& commands” in the symbol text field to show duration values, column text, and more. Even include normal text with the “& command,” as shown here…

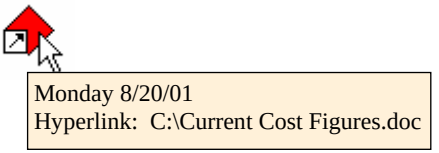
…resulting in…



Link other text documents

Hyperlink Word documents, Excel spreadsheets, web pages and more, to symbols or tasks on the schedule.

Hover over the symbol to see the hyperlinks, and right-click to launch.



Click and type

Quickly enter text by clicking a cell, a symbol, the chart title, a column heading, or free-form text, then start typing. The relevant dialog box launches as you type the text.

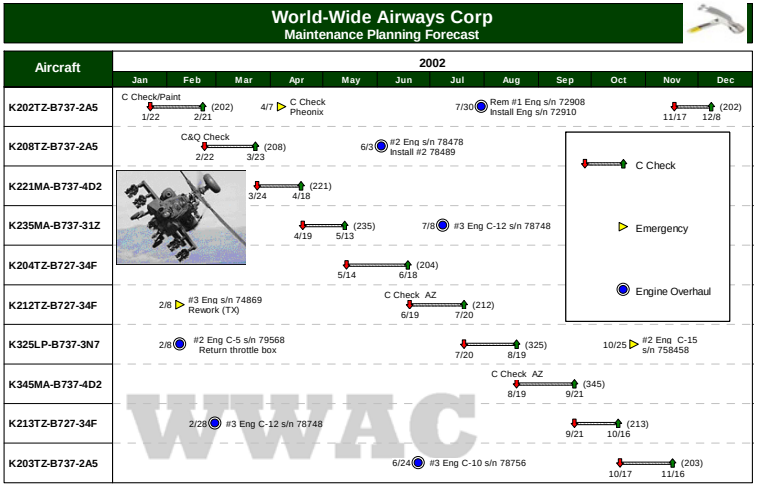
Spell checking

Milestones Professional has a built-in spell checker. All of the following languages are installed: English (United States), English (UK), English (Canada), French (Quebec), French (France), German, Spanish, Italian, Dutch, Swedish, Norwegian.

Graphics

Paste graphics anywhere in the schedule. Include up to 5 graphics in a template. Graphics can show on top of the schedule, behind the schedule information, and on all pages.

Graphics can be pasted in (via the Windows clipboard) or inserted from a file using one of these formats: JPG, JP2, PNG, DXF, EPS, IMG, WPG, PCX, TGA, WMF, TIF, and GIF.



Symbol date prefix and suffix

For symbols placed on the schedule, enter text to appear before and/or after an individual symbol's date display.

Flexible Symbology

Toolboxes

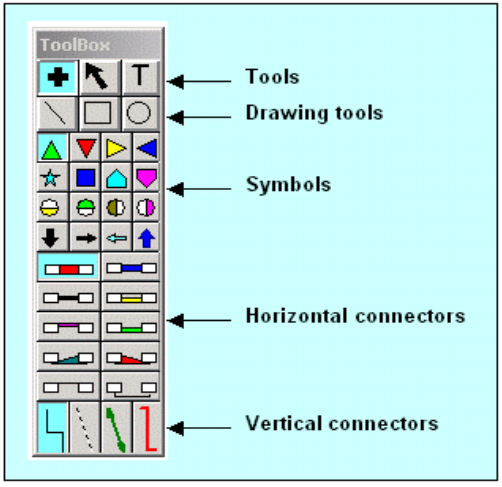
The Milestones Professional toolbox contains 3 tools, 32 symbols, 16 horizontal connectors, 8 vertical connectors, and 3 drawing tools to quickly build any schedule using the click-drag-and-drop method.

The Plus, Arrow, and Text tools exemplify the intuitive nature of Milestones: Need to add a symbol or connector? First click the Plus tool. Need to move a symbol on the schedule? First click the Arrow tool. Need to type text? First click the Text tool.

Two styles of toolboxes are available:

Standard Toolbox

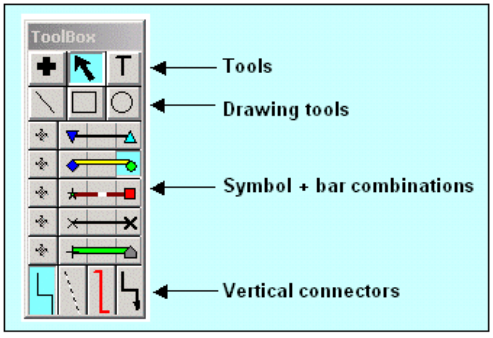
Symbols and connectors are separated. Symbols can be used by themselves or in any combination with connectors and other symbols.



Combo Toolbox

Symbols and horizontal connectors are combined in symbol+bar+symbol combinations. By using one of the small plus tools on the left to select a combination, you can quickly click-drag-and-drop a start symbol, connector, and end symbol.

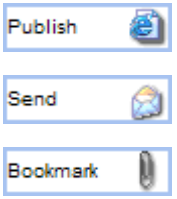
Symbols and bars can still be added independently.



Use the drawing tools to draw lines, arrows, circles and boxes. Format the color background, shape outline, fade effects and more.

Sidebar

The optional sidebar is an extra toolbar anchored to the left or right side of the Milestones window. The sidebar contains the toolbox (which is normally free-floating) and a user-defined list of shortcut buttons for a variety of activities, including moving from page to page, creating web pages, filtering, applying a color theme, creating a master schedule, and much more.



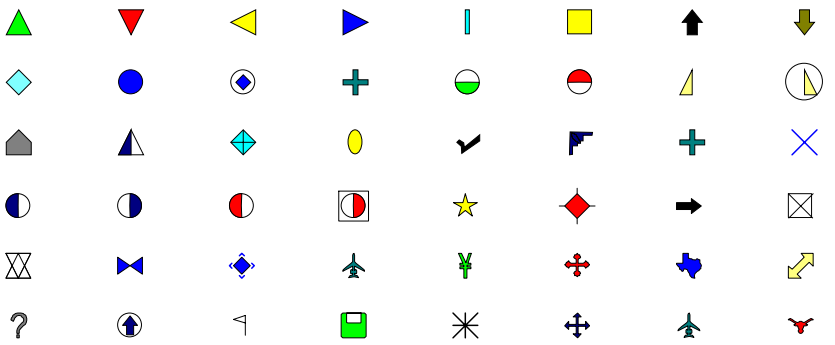
Symbol types

Any symbol in the Toolbox can be changed to any of four symbol types:

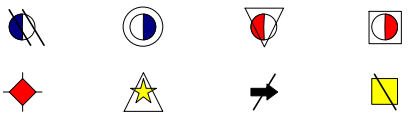
- *Normal* symbols track actual start dates, end dates, and independent milestones.
- *Baseline* symbols track baseline start, end, and duration. Lock, hide, or highlight these symbols.
- *Status* symbols track percent complete, used duration, remaining duration, status date, and amount ahead/behind schedule.
- *Comment* symbols are ignored for SmartColumn purposes (e.g. not counted in a Duration SmartColumn), and thus can be used for many purposes, including further annotating the schedule with symbol text and notes.

Wide assortment of symbols

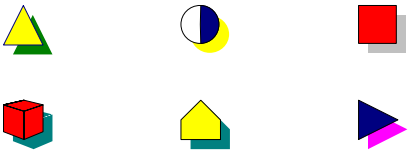
The flexibility and customizability of Milestones Professional symbology is second to none, with over 95 symbol shapes filled with any color.



Symbols can have any one of nine symbol "marking" patterns such as these:



Symbols can have a small, medium or large shadow of any color.



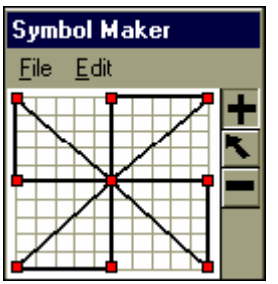
More formatting choices:

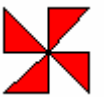
- Outline pattern
- Outline color
- Fill pattern
- “After status date” color
- Marking letters
- Custom size override
- Default text

User-defined symbols

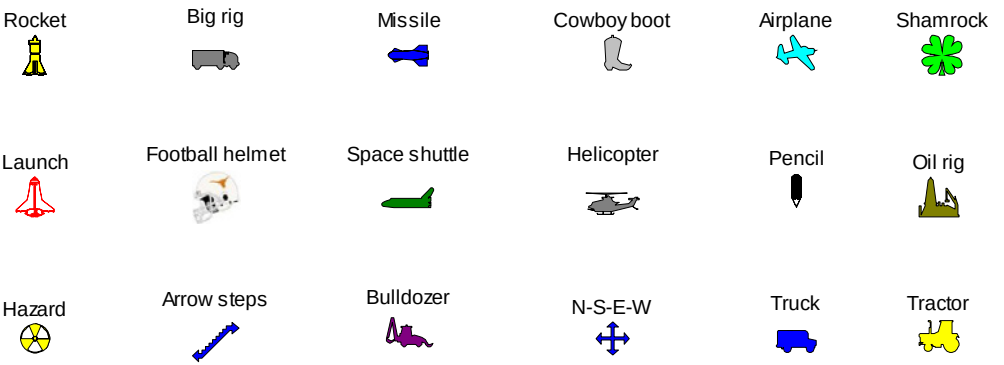
Not enough symbol shapes?

Milestones Professional has a built-in Symbol Maker that lets you design simple or multi-part shapes.



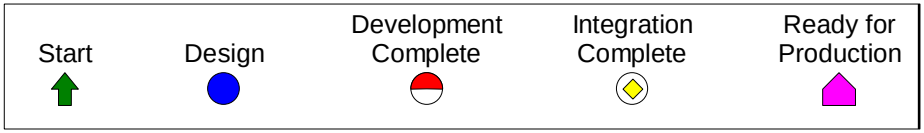


If that's not enough, you can insert any bitmap symbol. Custom symbols can be embedded in the schedule, making distribution of the schedule easier.

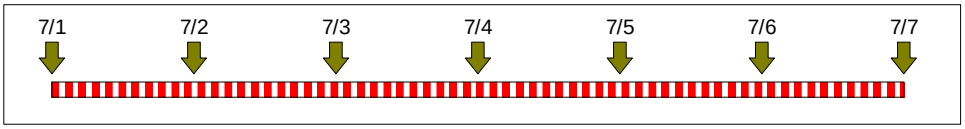


Multiple independent milestones

As many as 128 milestones can be added to any task line on your schedule. They can be stand-alone milestones or can represent a series of start and end dates.



You can have many milestones on a bar...

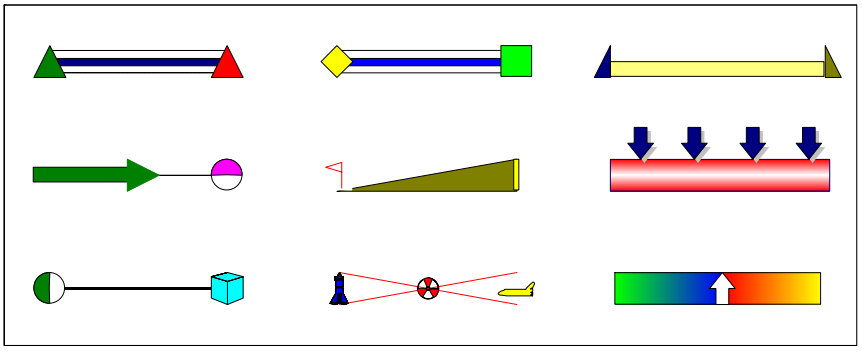


...or have many bars represent several sub-tasks, plus their start and end dates, on one row.

Tasks	January	February	March	April	May
Starter Prototype	Design		Develop		Test

Variety of connector shapes

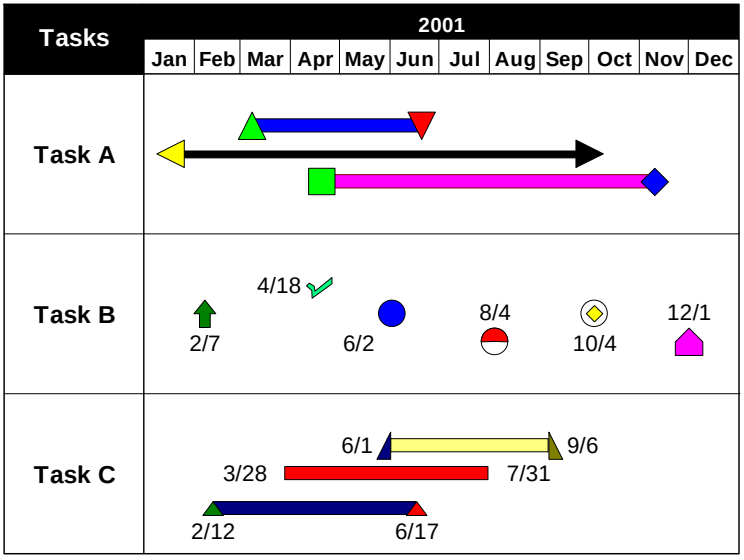
Like the symbols, the 40+ horizontal connector shapes and 15+ vertical connector shapes are fully customizable. The horizontal connectors can be filled with any single color or two colors faded together, as well as shadowed with any color.



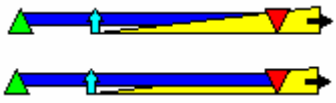
Three-level symbol and connector positioning

Symbols can be positioned at an upper, middle, or lower level on one task line. The connectors automatically follow the positioning of the symbols.

In the example below, an otherwise dense and cluttered schedule is distinct and clear with three symbol positions and a variety of symbol date and text positions.



Further customize connectors with the “Always on top” setting which controls which connector appears on the surface, as shown below:



Flexible Formatting

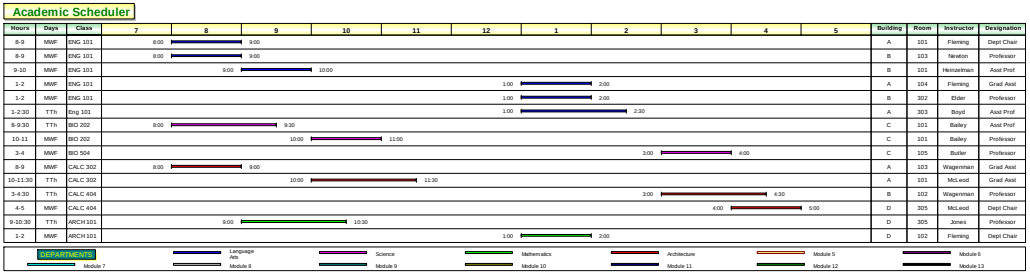
You completely control the size and format of your schedules, including the physical page size of the schedule, the number and width of the columns, the number and height of the rows, the size of the optional legend, margin sizes and more.

Physical sizing

It is possible to create schedules…

…as small as a postage stamp…

…or wall size!


Academic Scheduler
Hours
Days
Class
7
8
9
10
11
12
1
2
3
4
5
Building
Room
Instructor
Designation
8-9 MWF ENG 101 8:00 9:00 A 101 Fleming Dept Chair
8-9 MWF ENG 101 8:00 9:00 B 103 Newton Professor
9-10 MWF ENG 101 9:00 10:00 B 101 Heinzelman Asst Prof
1-2 MWF ENG 101 1:00 2:00 A 104 Fleming Grad Asst
1-2 MWF ENG 101 1:00 2:00 B 302 Elder Professor
1-2:30 TTh Eng 101 1:00 2:30 A 303 Boyd Asst Prof
8-9:30 TTh BIO 202 8:00 9:30 C 101 Bailey Asst Prof
10-11 MWF BIO 202 10:00 11:00 C 101 Bailey Professor
3-4 MWF BIO 504 3:00 4:00 C 105 Butler Professor
8-9 MWF CALC 302 8:00 9:00 A 103 Wagenman Grad Asst
10-11:30 TTh CALC 302 10:00 11:30 A 101 McLeod Grad Asst
3-4:30 TTh CALC 404 3:00 4:30 B 102 Wagenman Professor
4-5 MWF CALC 404 4:00 5:00 D 305 McLeod Dept Chair
9-10:30 TTh ARCH 101 9:00 10:30 D 305 Jones Professor
1-2 MWF ARCH 101 1:00 2:00 D 102 Fleming Dept Chair
DEPARTMENTS
Language Arts
Science
Mathematics
Architecture
Module 5
Module 6
Module 7
Module 8
Module 9
Module 10
Module 11
Module 12
Module 13

Many time-scale options

Schedules can show standard time scales ranging from minutes to years, and custom, user-defined periods. Choose minutely, hourly, or daily for symbol placement; top and/or bottom of the schedule for date heading placement; and any period frequency (e.g. every 5 years). A few possibilities:

Years, months, quarters, weeks from start of schedule

2002											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Q1			Q2			Q3			Q4		
1	2	3	4	5	6	7	8	9	10	11	12

Hours and minutes

8AM															
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

Fiscal years and quarters

FY02				FY03			
First	Second	Third	Fourth	First	Second	Third	Fourth

Custom headings

Peliozoic Age			Jurassic Age
7 million - 6 million BC	6 million - 5 million BC	5 million - 4 million BC	4 million-3 million BC

2003				2004				2005				2006	
Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Phase 1				Phase 2				Phase 3					

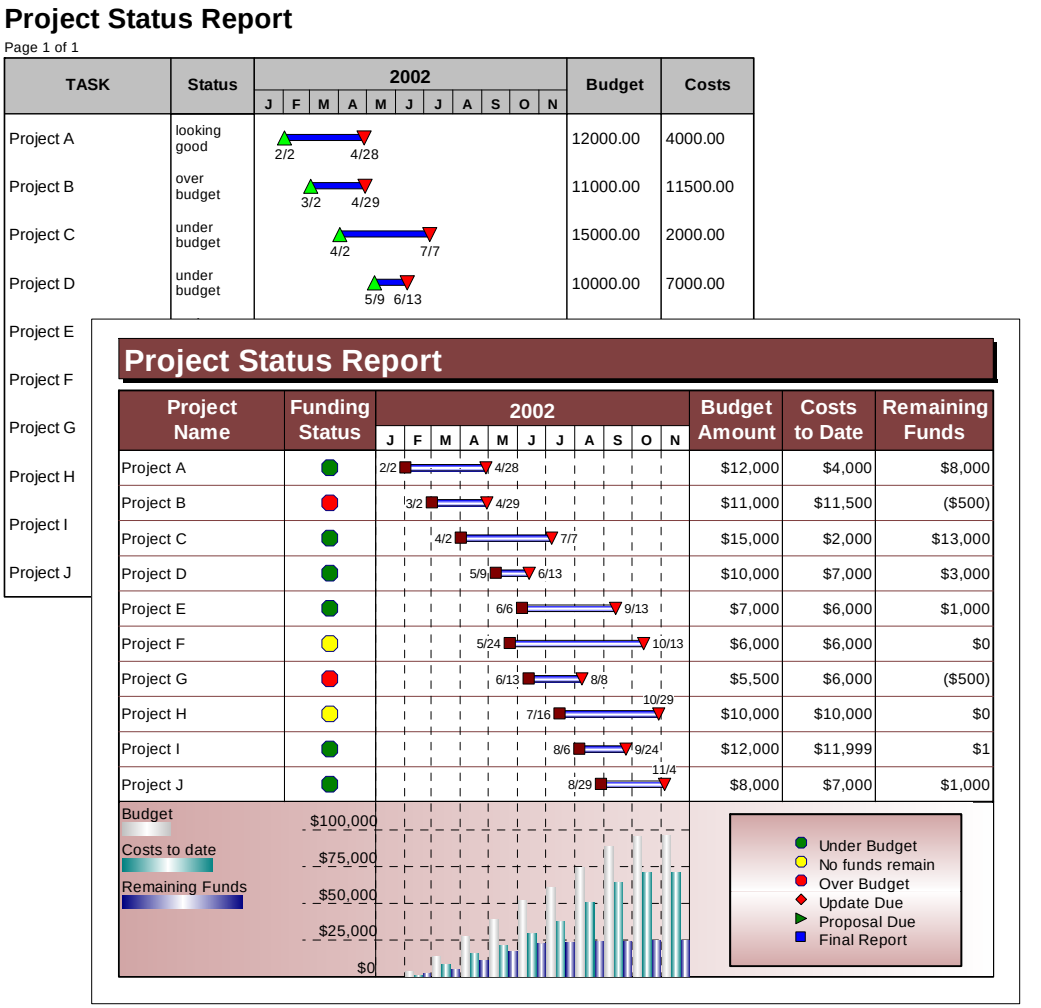
Templates for instant formatting

Templates save time by preserving the customized toolbox, columns, column headings, page layout, indicator symbol conditions, and more.

Templates retain the formatting (the "look" of a chart) while charts preserve schedule details (task line entries, dates, column value entries, etc.).

Choose from dozens of Milestones' Standard Templates, and create Personal Templates to be used by your whole division or company. Begin with a template or overlay an existing schedule with a template.

The working schedule (below, left) is instantly transformed into a professional presentation schedule (below, right)—all with the use of a template.



Full international support

If English is not your language of choice, or if your preference is the metric measurement system, Milestones Professional can support you. It provides the capability to set up custom language templates for any language.

Milestones Professional also picks up your date format and measurement type choices directly from the Windows Control Panel Regional Settings.

ISO week numbering

Milestones Professional supports the International Standards Organization's standards for week numbering. The ISO week number heading type is available in our list of date headings.

Custom page numbering

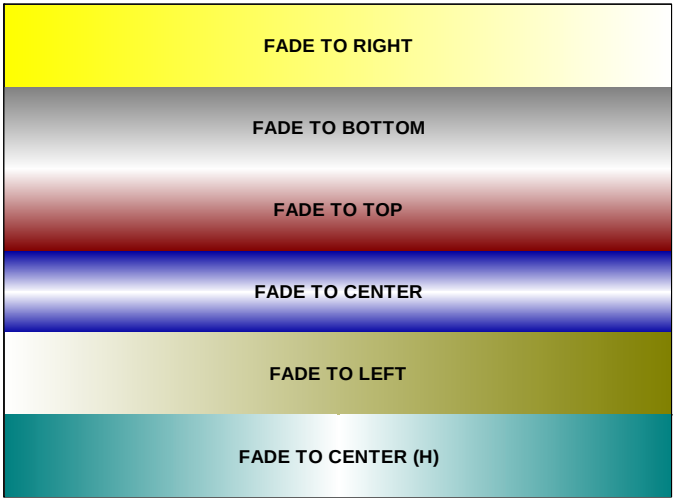
Customize the page number of a Milestones schedule to match the pagination of your report, and then insert the schedule as a part of the report.

- Set the starting page number. "Page __ of 6,000"
- Set the end display number. "Page 1 of __"
- Exclude the standard “of…” phrase. "Page 1" instead of "Page 1 of 10"
- Set a page number prefix string. "Page 3-1" (the prefix is "3-")

Gradient fill patterns

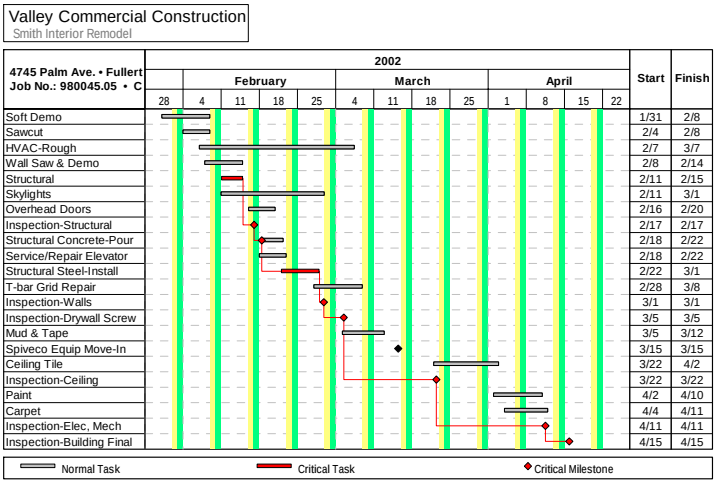
Gradient fills allow you to fade the background or fill color from one color to another.

These “special effects” can be chosen for many parts of your schedule, including connector bars, date headings, column headings, task shading, legends, DataGraphs, individual cells, and more.



Weekend and holiday shading

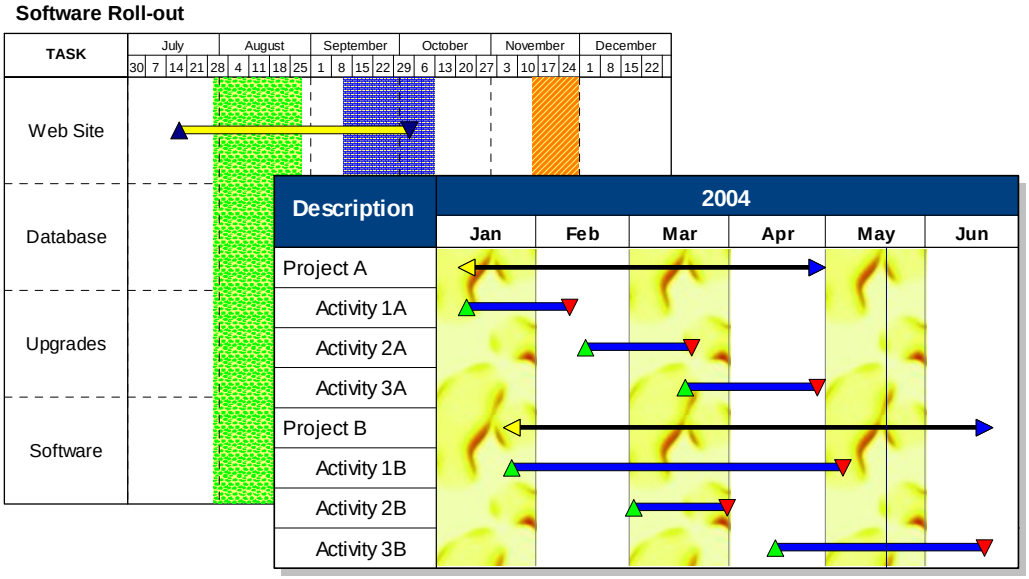
Saturdays, Sundays, and holidays can be shaded, each in its own color. Customize the holiday calendar to match your company's calendar or for a single schedule.



Curtains

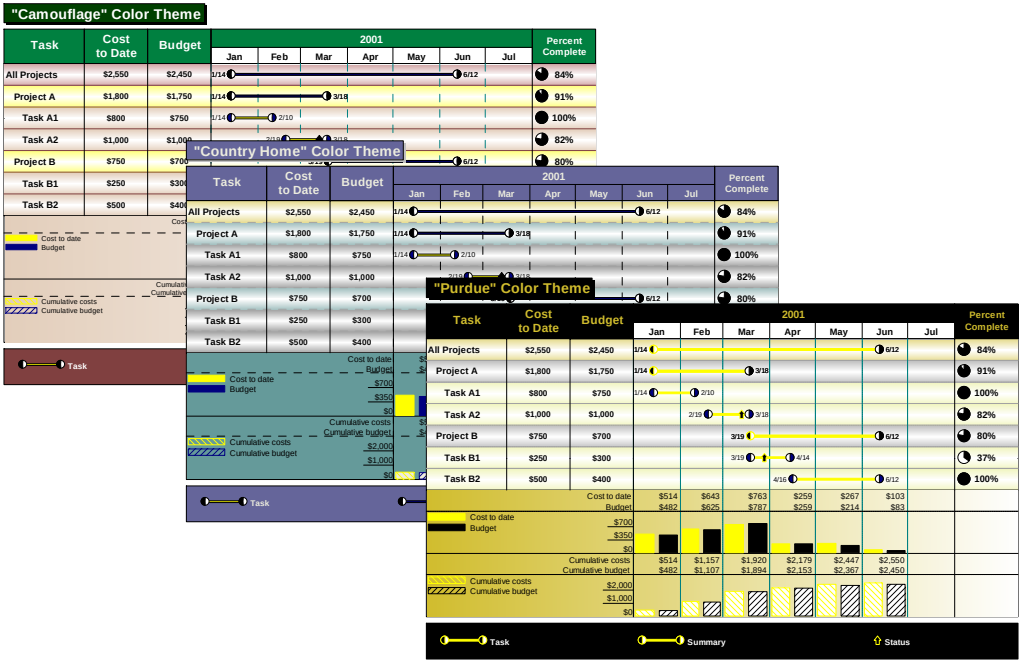
Curtains provide vertical shading for a date range or for several date ranges.

Repeat curtains at specified intervals, use more than 25 fill patterns, hide curtains, and more. Choose from many marbled color patterns.



Color themes

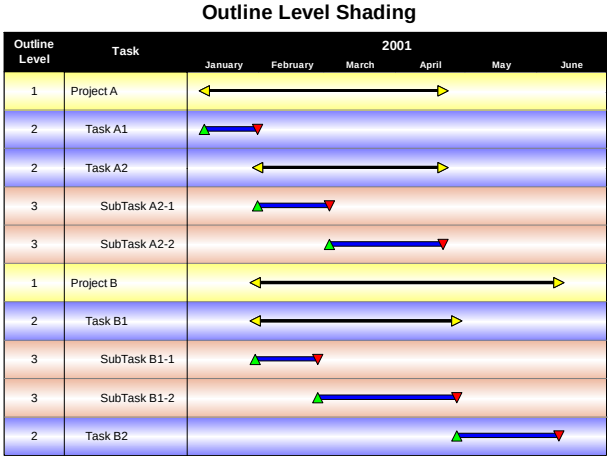
Apply a color theme to a new or existing schedule for instant color formatting. Choose from more than 40 color themes or create your own.



Outline level shading

Choose task line background shading, column text formatting, gridlines and summary bar styles to clearly distinguish each outline level.

Great for presentation schedules and top-level reporting.



More custom shading

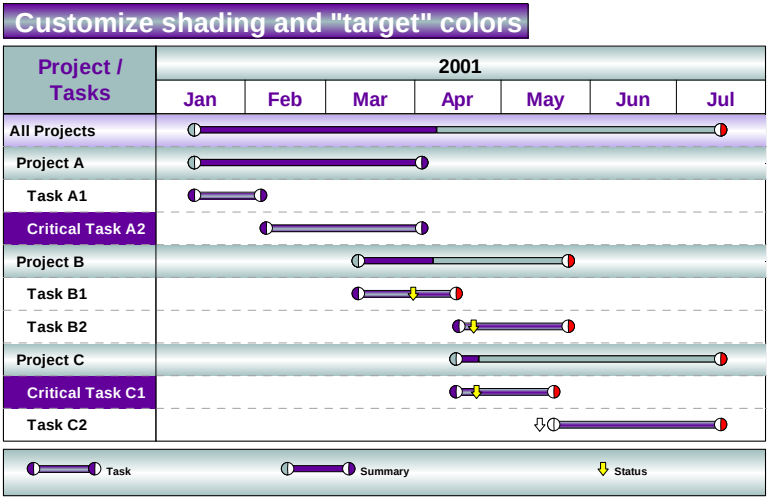
Customize the background colors in a variety of areas:

- Outline levels
- Odd or even task lines
- Selected task lines
- Individual cell backgrounds
- Columns
- Column headings
- Fill-to-status
- Schedule title
- Date headings
- Legend
- DataGraphs
- Drawn boxes
- Free-form and symbol text
- Bars in DataGraphs

In addition, choose a color and a “target” color to create shading with two colors that fade into each other.

In this example:

- ✓ The “Critical Tasks” cells have a purple background.
- ✓ The unfinished milestones have a red fill while the completed milestones have a purple fill.
- ✓ The connector fill after the yellow status symbol is purple.
- ✓ The title background fades from teal to purple.



Change view formats

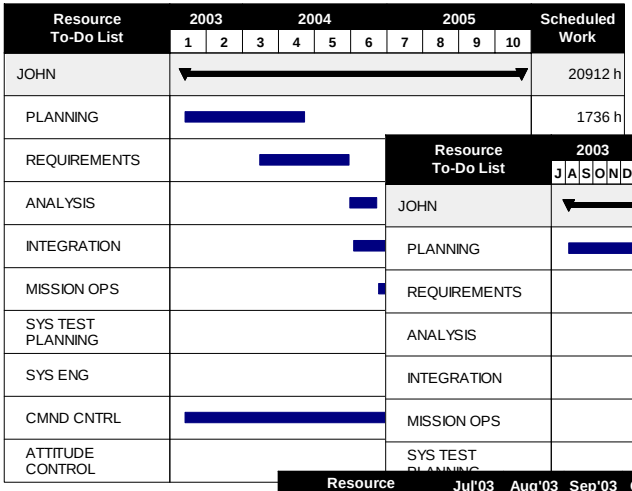
Milestones Professional offers many view modes in addition to the standard Gantt chart view.

Expand or contract the time period viewed

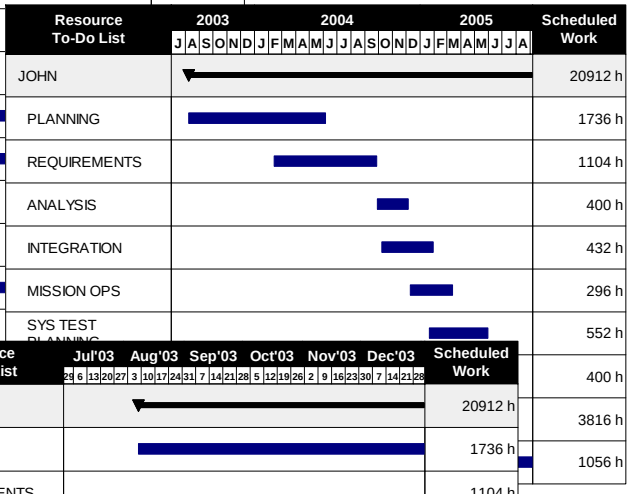
Instantly switch the time period displayed in the date headings to a daily, weekly, monthly, quarterly, or yearly view.

The schedule below shows John's activities for the next ten quarters. To see what his activities are in the months to come, switch to the monthly view. To see what John is doing in the weeks to come, switch to weekly view.

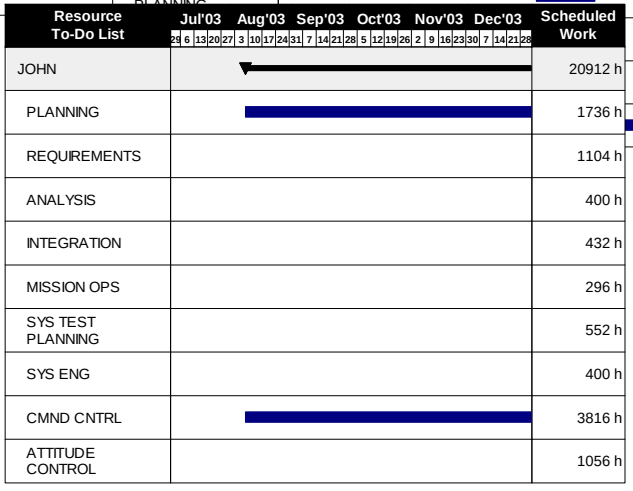
Original view



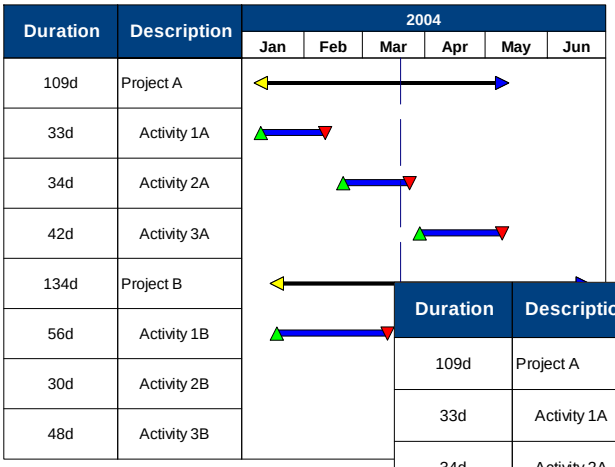
Switch to monthly view



Switch to weekly view

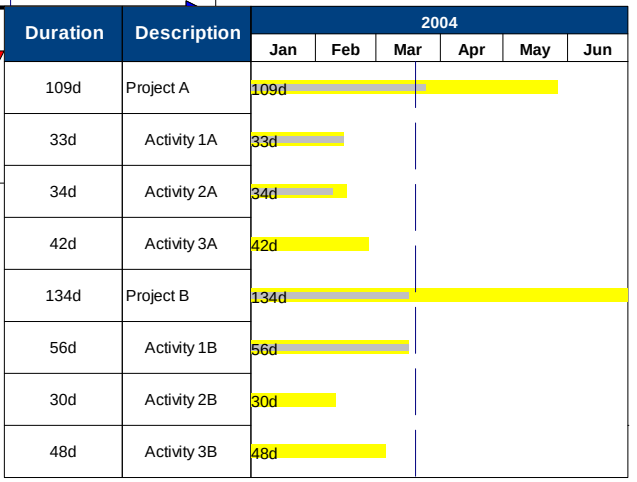


Duration View and Percent Complete View



The Duration View mode replaces the Gantt bars and milestones with bar graphs indicating each task's duration.

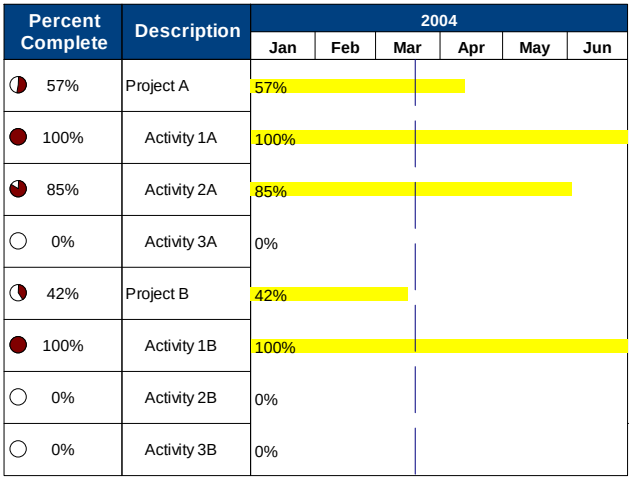
In the Duration View below, a bar's length corresponds to a task's duration value. The gray fill indicates the completed portion.



✍ The default bar color is red and can be changed to another color under *Tools* | *Options* | *View*.

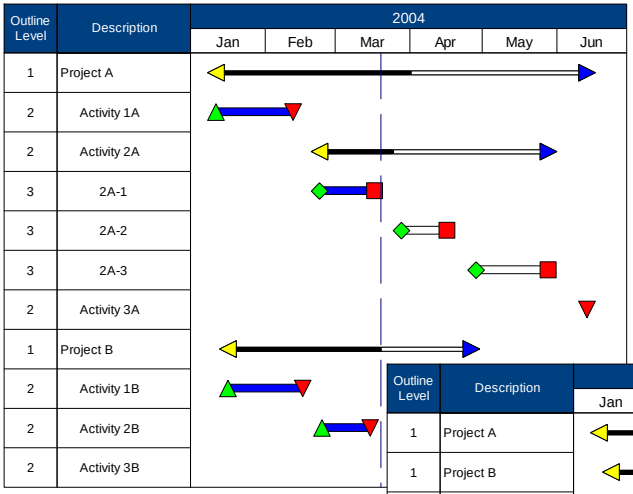
The Percent Complete view mode replaces the Gantt bars and milestones with bar graphs indicating each task's percent complete.

Each task displays a red bar (by default—in this example, yellow is used) indicating its percent complete. A bar's length corresponds to a task's percent complete value in relation to the date heading length. That is, a task which is 50% complete will display a red bar which traverses half of the date heading's length.



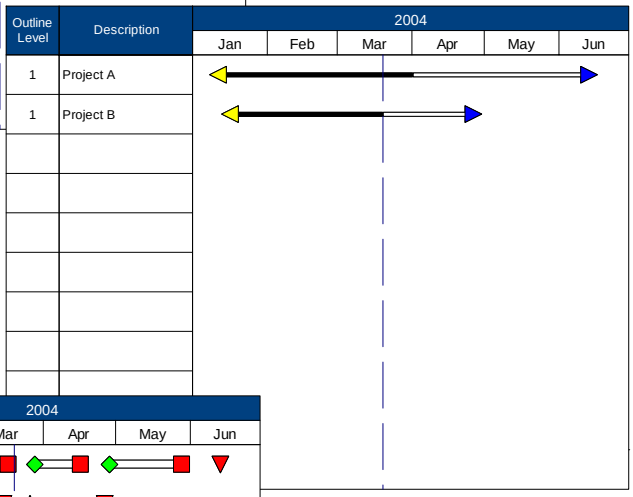
Gantt roll-up views

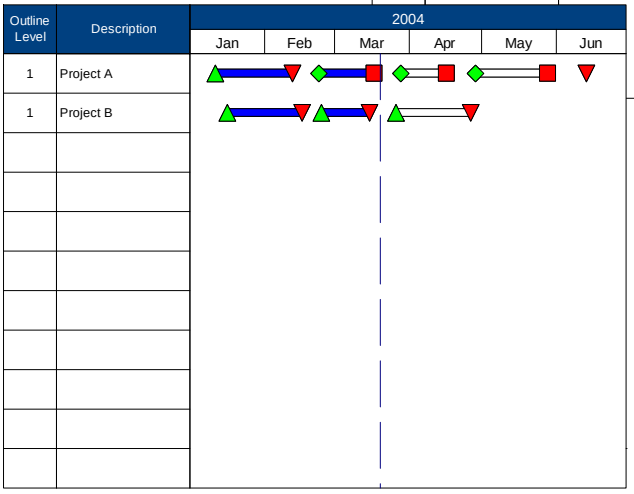
Switch between three different Gantt chart views, including the normal Gantt view, a roll-up of single task bars, and a roll-up of lower level symbols and bars.



Gantt – Normal View displays the default Gantt chart view.

Gantt – Rolled-Up to Single Bar displays one summary bar for each outline level 1 summary task.





Gantt – Rolled-Up to Multiple Bars displays lower-level task bars and milestones as rolled-up to outline level 1 summary tasks.

Calendar view

A monthly calendar view of important events can be generated for any schedule. The schedule title, symbols, and symbol text are displayed.

Administrative Division
January 2002

Sun	Mon	Tue	Wed	Thu	Fri	Sat
30	31	1	2	3	4 Resource review	5
6 Staff meeting	7 Research review	8	9 Design review	10	11	12 Board meeting
13	14 Dept meeting	15	16 Dept meeting	17 Staff meeting	18	19 Monthly report review
20	21	22 Design review	23	24	25 Resource review	26
27 Dept meeting	28 Design review	29 Monthly report	30 Staff meeting	31	1	2
3	4	5	6	7	8	9

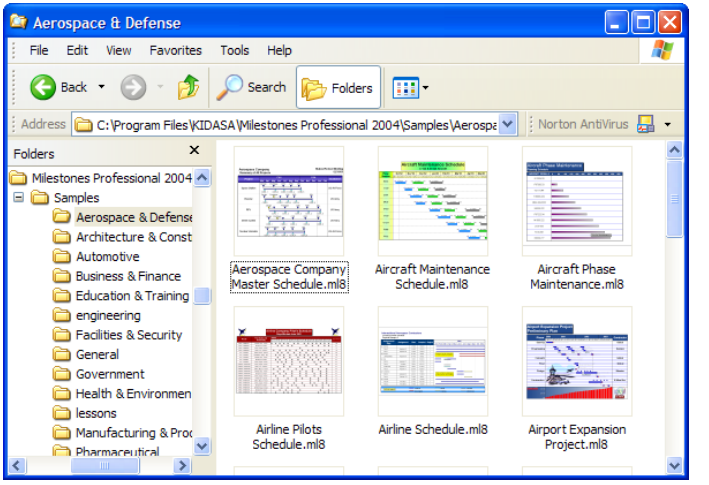
Date heading scroll buttons

Use toolbar scroll buttons and to scroll through your schedule by any number of days so that you have a “sliding” time window. For example, set the number of "days to scroll by" to 30 to scroll a month at a time; or to 7 to scroll a week at a time.

View schedule thumbnails

Instead of the generic Milestones file icon, view thumbnail images of saved Milestones schedules when viewing file lists in Windows Explorer’s Thumbnails View mode.

This features works with Windows 2000, XP and later. By default this save option is on.



Chapter 2: The Basics

The best way to learn to use Milestones Professional is to go through each of the Tutorials available from the Help menu. These tutorials are designed to get you up and running very quickly.

Before taking the tutorials, you may want to review this chapter, as it contains valuable information concerning the basic layout of the screen, basic terminology, and some of the basic operations of the program.

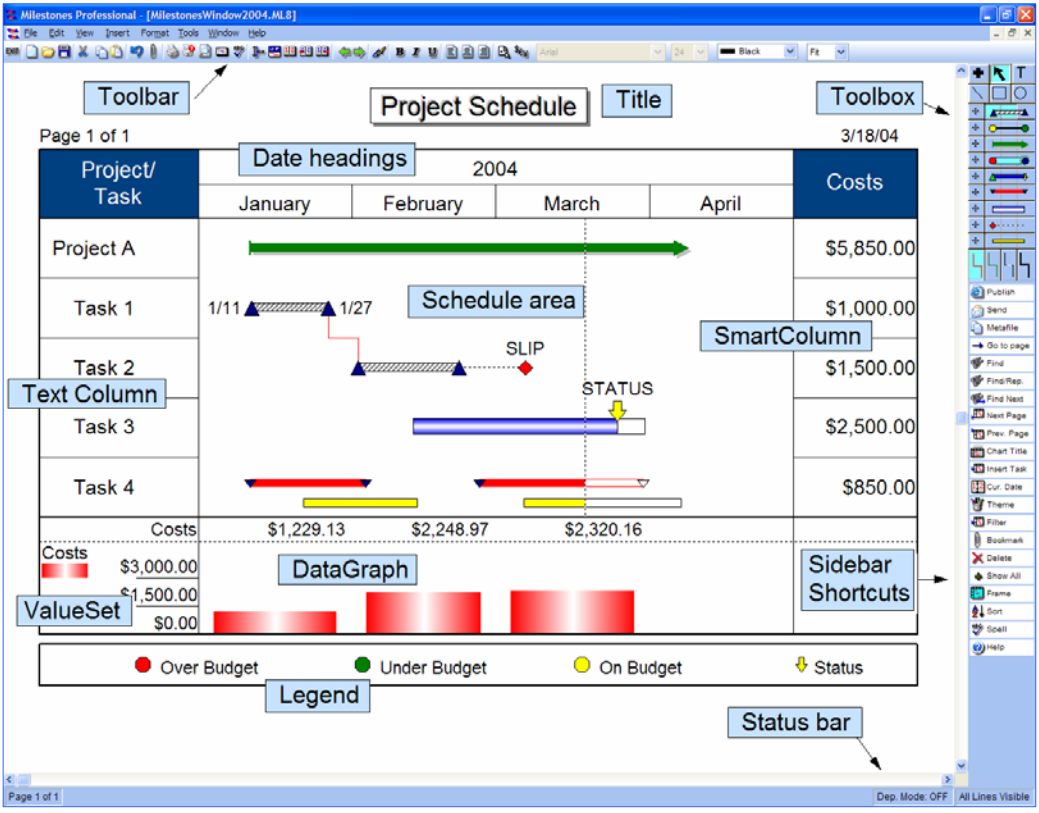
More extensive and interactive documentation on these topics can be found in the *Milestones Professional Help Topics* under the *Help* menu.

In this chapter you will learn about the following functions:

- ✓ The Milestones Professional Window Layout
- ✓ Combo Toolbox – add symbols and connectors in one step, and separately
- ✓ Standard Toolbox – add symbols and connectors separately
- ✓ Sidebar – contains the toolbox and extra shortcut buttons
- ✓ Toolbar shortcut buttons
- ✓ Add symbols
- ✓ Add horizontal connectors (bars)
- ✓ Add vertical connectors
- ✓ Change the date of a symbol (move a symbol)
- ✓ Change a symbol's type in the toolbox
- ✓ Change a horizontal connector type in the toolbox
- ✓ Change a vertical connector type in the toolbox
- ✓ Columns, column headings and task rows
- ✓ Enter column text
- ✓ Date headings
- ✓ Schedule date range
- ✓ Add graphics
- ✓ Symbol notes and symbol text
- ✓ View mode options
- ✓ Keyboard shortcuts
- ✓ Right-click menus
- ✓ Schedule Setup Wizard

The Milestones Professional Window

While using Milestones Professional, you will see a screen similar to the one below:



Enter text such as project activities, notes, and resource names in a **Text Column**.

SmartColumns automatically fill according to schedule data or entered data. In this example, the “Costs” column is a Values SmartColumn whose user-entered, task-level values automatically total at the summary level.

Choose from dozens of **Date heading** styles from years to minutes to custom entries.

The **Schedule Area** is where you can click-and-drag to add task bars, milestones, vertical dependencies and more.

The **Sidebar** contains the toolbox (which is normally free-floating) and a user-defined list of **Shortcut** buttons for a variety of common activities.

The **Toolbox** provides the tools you need to build your schedule, including symbols, connectors, and Plus, Arrow and Text button controls.

The **Status Bar** provides useful feedback to you while you work with your schedule.

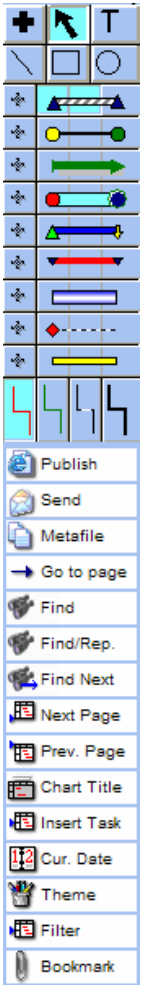
The **Toolbar** is used to easily activate frequently used options, much like the Sidebar shortcut buttons.

The schedule **Title** can be used to provide your project title or other useful information about your schedule.

The **Legend** contains user-entered definitions for task bars and symbols.

ValueSets are categories of values, such as budget, cost, and manhours. Those values can be graphed in the **DataGraph** area.

Sidebar



The optional sidebar is an extra toolbar anchored to the left or right side of the Milestones window. The sidebar contains the toolbox (which is normally free-floating) and a user-defined list of shortcut buttons for a variety of activities including moving from page to page, creating web pages, filtering, applying a color theme, creating a master schedule, and much more.

Sidebar options

Under the **Tools** menu, choose **Customize** | **Sidebar Options** to make changes to the sidebar. Changes to the Sidebar Options apply to all schedules.

Choose to show the sidebar on the left or right, or hide the sidebar (in which case the toolbox becomes free-floating). *You must close and restart Milestones for these changes to take effect.*

Choose to **Remove** shortcut buttons from the list of **Current Sidebar icons**, and **Add** buttons from the list of **Available Sidebar icons**.

If you cannot see all sidebar shortcut icons that you have selected, note that the number of visible sidebar icons is determined by the toolbox size, screen resolution, and Milestones window size. The fewer rows of symbols and connectors in the toolbox, the more sidebar shortcut icons are visible. A screen resolution of 1280x1024 will show more sidebar shortcut icons than a screen resolution of 800x600, for example. A maximized Milestones window will display more sidebar shortcut icons than a minimized window.

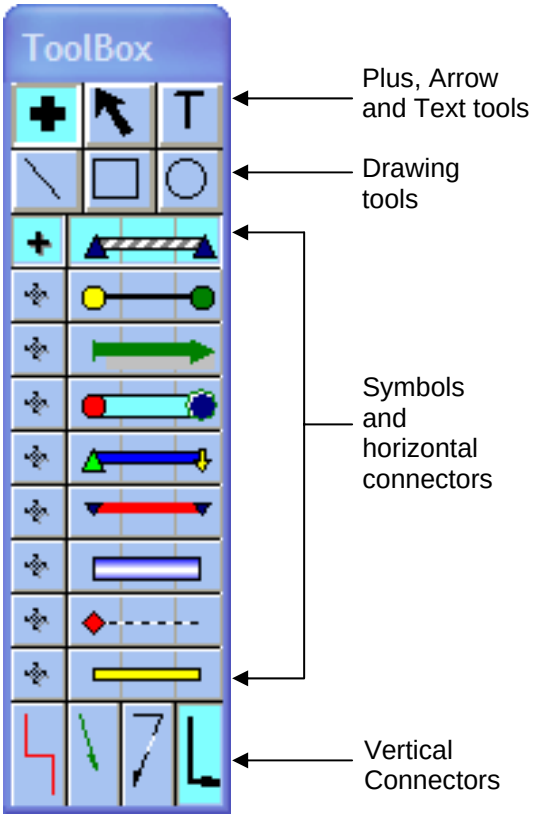
Toolboxes

Milestones Professional offers two types of customizable toolboxes. Both types contain the same schedule building-blocks for creating Gantt bars, milestones, task dependencies and more. Toolbox settings are unique to each schedule.

To display the toolbox within the sidebar, right-click the toolbox and choose **Sidebar Options**. Choose to show the sidebar on the left or right side of the schedule; otherwise, the toolbox will be free-floating or hidden.

Combo Toolbox

With the Combo Toolbox, it's easy to add task bars in one step—simply click a small Plus, then click-and-drag in the schedule area to add a symbol, horizontal bar, and symbol in one continuous mouse action. Or, add symbols and connectors separately.

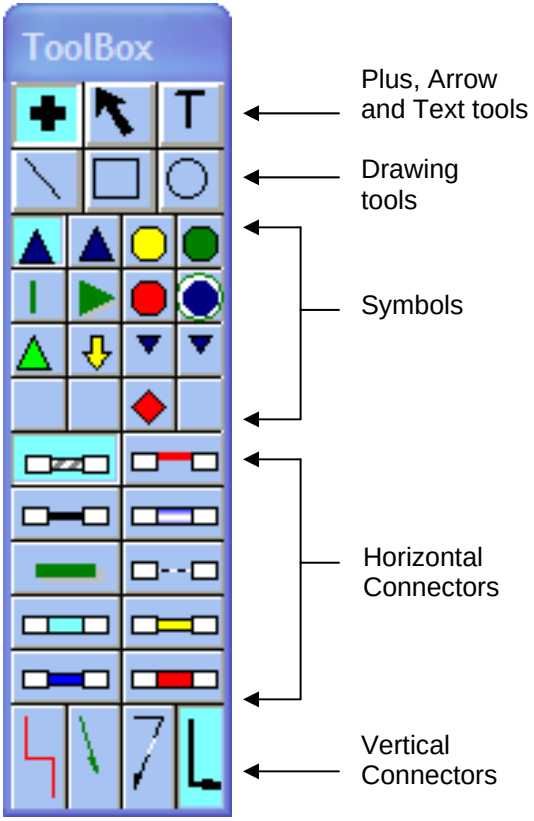


About the Combo Toolbox:

- Double-click a symbol or connector in the toolbox to change its shape, color, and other properties.
- Each of your schedules can have a different toolbox, customized with different symbols and connectors.
- A Combo Toolbox can have up to 16 rows of symbol/connector/symbol combinations (32 symbols and 16 connectors), and 8 vertical connectors.
- Right-click the toolbox and choose **Toolbox Properties** to change its size.
- You can set-up a default toolbox that will appear every time you create a new schedule. Do this by saving a "template" called Default.mtp.
- Hide the toolbox by clicking **Toolbox** on the **View** menu.

Standard Toolbox

The Standard Toolbox makes it easy to add symbols and connectors in separate steps.



About the Standard Toolbox:

- Double-click a symbol or connector in the toolbox to change its shape, color, and other properties.
- Each of your schedules can have a different toolbox, customized with different symbols and connectors.
- A Standard Toolbox can have up to 32 symbols, 16 horizontal connectors, and 8 vertical connectors.
- Right-click the toolbox and choose **Toolbox Properties** to change its size.
- You can set up a default toolbox that will appear every time you create a new schedule. Do this by saving a “template” called Default.mtp.
- Hide the toolbox by clicking **Toolbox** on the **View** menu.

Toolbox "tools"

On the first two lines of the toolbox, you will find six button or "tools." These are described in the following table:

Tool	Use this tool to:
Plus Tool	Add symbols; connect symbols; add horizontal connector bars and vertical connector lines.
Arrow Tool	Change the date of a symbol, move graphics or freeform text, or select an object.
Text Tool	Add or edit text.
Line Tool	Draw lines and arrows on your chart. (Not recommended for drawing connectors or dependencies between symbols.)
Box Tool	Draw squares and rectangles on your chart.
Circle Tool	Draw circles and ellipses on your chart.

The (Plus) tool, the (Arrow) tool, and the (Text) tool are the three main tools you will use for your scheduling activities. The Plus tool is usually the tool needed to add items to your schedule. The Arrow tool is used to move existing objects. The Text tool is for adding text to any object or schedule area which supports a text entry.

Menus

The items in the drop-down menus listed across the top of the Milestones screen can be customized. Non-critical selections under each menu can be removed or restored. This is a great way to remove never-used menu items, resulting in shorter menu lists.

As an indicator that some menu items are hidden, a chevron will appear at the bottom of the menu list.

Not all menu items can be hidden.

Further, the appearance of the menu drop-down lists can be customized for optimal viewing in the various Windows editions, including XP. Find these settings under *Tools* | *Options* | *General*.

Hide or restore selected menu items

1. Choose **Tools** | **Customize** | **Modify Menus**.
2. To hide a menu item, choose a menu selection under **Visible menus** and then choose **<<Hide**.
3. To restore a menu item, choose a menu selection under **Hidden menus** and then choose **Restore>>**.

Restore all menu items

All hidden menu items can be restored to the default setting of displaying all menu items. To do so, choose **Tools** | **Customize** | **Restore Menus**.

Select a hidden menu item

1. Click the chevron at the bottom of the menu list.
2. Choosing the chevron allows access to the hidden menu items, yet does not restore them to the permanent menu list. That is, the next time this menu tree is selected, the chevron will appear again.

Some Milestones functions and menu items can be disabled as set by the Group Policy. See the *Milestones Professional Help Topics* under the *Help* menu for more information. Index keywords: “Group Policy Administrative Template.”

Add Symbols and Connectors using the Toolboxes

Horizontal connector bars show the time span of a task for an activity in your project. A symbol must be on each end of the horizontal connector bar. Symbols can also be added individually, independent of a connector bar.

Which toolbox should you use?

Using the Combo Toolbox, you can add a symbol+connector+symbol combination, in one click-drag-and-drop movement of the mouse.

Using the Standard Toolbox, you must first add a symbol, and then add the connector and another symbol to that first symbol.

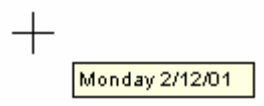
Both toolboxes allow you to add single symbols; a symbol and connector to an existing symbol; and a connector between two existing symbols.

Add a symbol/connector/symbol combination using the Combo Toolbox

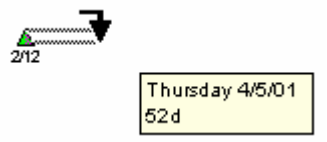
1. In the toolbox, click once on the small plus next to the symbol/connector/symbol combination you want to add. (All clicks are with the left mouse button.)

   When you click in the toolbox, notice that the selection is sunken and highlighted.

2. Move the cursor to a task line in the schedule area under the date heading. Notice that the date is displayed next to the “crosshairs” cursor:

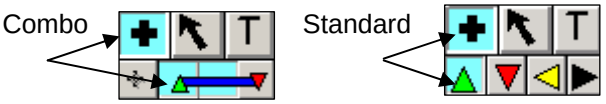
   

3. Next, click and hold the mouse at the start date, drag to the right, and release at the task's end date. Here, the end date is displayed next to the cursor, as well as the duration.

Add a single symbol using the Combo or Standard Toolbox

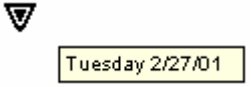
1. In the toolbox, click once on the big Plus tool, then once on the symbol you want to add.



When you click in the toolbox, notice that the selection is sunken and highlighted.

2. Move the cursor to a task line in the schedule area. Notice that the cursor is a “crosshairs” cursor.

3. Next, click and hold the mouse, drag to the right or left, then release at the date you want. The date is displayed next to the cursor as you drag, looking for the correct date.



Add a horizontal connector and symbol to an existing symbol on the schedule using the Combo or Standard Toolbox

Use this method when you already have a starting symbol on the schedule and want to add an ending symbol with a connecting bar between start and end.

1. Click once on the tool in the toolbox.
2. In the toolbox, click once on the symbol that you want to add.
3. In the toolbox, click once on the connector that you want to add.

When you click in the toolbox, notice that the selection is sunken and highlighted.

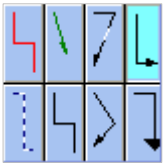
4. On the schedule, position your cursor directly on top of the start symbol. Click (and hold the mouse button) on the start symbol and drag to the right. Release the mouse button on the end date.

Add a horizontal connector between two existing symbols using the Combo or Standard Toolbox

1. In the toolbox, click once on the tool.
2. On the schedule, click once on the first (leftmost) symbol you want to connect.
3. In the toolbox, click once on the horizontal connector you want to add.
4. On the schedule, click once on the second symbol—the two symbols will then be connected.

Vertical Connectors

Vertical connectors are used to show a relationship or predecessor/successor link between schedule activities. The toolbox provides up to eight vertical connectors for use on the schedule.



Change the shape, line pattern, color, and other properties by double-clicking on a vertical connector in the toolbox. Choose from more than 15 connector shapes.

Up to five vertical connections can originate from a single symbol on the schedule.

To add a vertical connector using the Combo or Standard Toolbox

1. In the toolbox, click once on the (Plus) tool. *All clicks are single, left mouse clicks.*
2. On the schedule, click once on the symbol where the vertical connection will originate.
3. In the toolbox, click once on the vertical connector you want to add.
4. On the schedule, click once on the symbol (on a different task row) where the vertical connection will end. The two symbols will then be connected.

To add multiple vertical connectors at once

Instead of adding vertical connectors one at a time, you can quickly add multiple vertical connectors between selected task rows.

Choose from finish symbol to start symbol, start to finish, finish to finish, and start to start connections. The “finish symbol” will be the symbol with the latest date on a task row; the “start symbol” will be the symbol with the earliest date. Thus, this method is not recommended when task rows have multiple start-to-finish task bars or symbols.

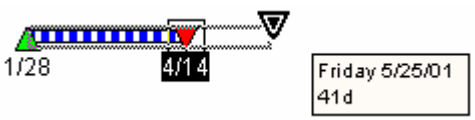
1. In the toolbox, click the (Arrow) tool.
2. In the toolbox, click once on the vertical connector to be used.
3. Select a range of task lines or non-contiguous task lines whose symbols will connect vertically.
    a. To select a range of task lines, click once on the first task line of the range (click in the column area—not the schedule area).
    b. While holding the **Shift** key, click on the last task line in the range. All selected task lines will be highlighted. (Hold the **Control** key while selecting non-contiguous task lines.)
4. From the menu, choose **Insert** | **Vertical Connection(s)**.
5. Choose to connect **Normal** or **Baseline** symbols.
6. Choose **Downward** or **Upward** connections.
7. Choose to connect the symbols from **Finish to Start**, **Start to Finish**, **Start to Start**, or **Finish to Finish**.
8. Choose **OK**, and the vertical connectors will appear.

Move an Existing Symbol on your Schedule

Once a symbol is placed on the schedule, several methods are available for moving (changing the date of) the symbol.

Change a symbol’s date using the mouse

1. In the toolbox, select the tool.
2. On the schedule, click on the symbol and drag it to a new date. Release the mouse button.



Add a symbol or change the symbol's date with a date SmartColumn

If your schedule has a date SmartColumn, manually type a date or use the date selection calendar to enter a new date or change an existing date in the column cell.

A new date (where none existed before) results in a symbol appearing on the schedule. Changing a date moves the existing start or end symbol. When using this method, dependent symbols will not move.

Insert a date SmartColumn by selecting **Insert** | **Column** and choose from **Start Date**, **End Date**, **Baseline Start**, and **Baseline End**.

Display calendar icons in date SmartColumns by double-clicking any column heading, selecting the **Column Type (SmartColumn) Settings** tab, and checking **Show calendar icons**.

Other methods to change a symbol's date

1. Select the tool from the toolbox.
2. Double-click on the symbol you wish to change.
3. Key a new date or select the calendar icon in the *Symbol Properties* dialog.

-or-

1. Click .
2. Single-click on the symbol.
3. Choose **Ctrl**+**E** on the keyboard.
4. Key a new date in the dialog box that appears.

-or-

1. Click .
2. Single-click on the symbol.
3. Hold **Shift** while using the left and right arrow keys on the keyboard.

Add Text to your Schedule

Include text in these areas of your Milestones schedule: symbol text, symbol notes, column text, freeform text, and more.

Add text to a column

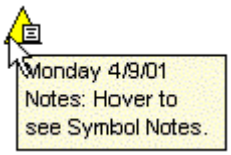
Create a column to display text by choosing **Insert** | **Column** | **Text**.

1. Select the (Text) tool in the toolbox.
2. Click once in a column cell.
3. Once you see the flashing cursor, you can begin typing. Use the arrow keys on the keyboard to move from column cell to cell.

Add a note to a symbol

Enter up to 10,000 characters in the symbol notes field. This text is embedded in the symbol, and appears when the cursor hovers over the symbol. Optionally, print symbol notes with the schedule. View notes under **Tools** | **Reports** | **Symbol Notes**.

1. Select the tool in the toolbox.
2. On the schedule, double-click the symbol that will contain the notes.
3. Select the **Notes** tab and enter the text.



Add text to a symbol

Symbol text is displayed adjacent to a symbol and moves with the symbol.

1. Select the tool in the toolbox.
2. On the schedule, double-click the symbol that will contain the symbol text.
3. Select the **Text** tab and enter up to three lines of symbol text.

Add freeform text

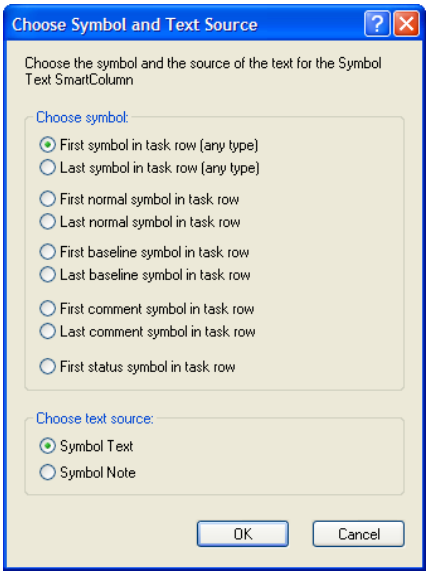
Freeform text is text that is not associated with symbols, task lines, columns, or any other specific area of the schedule. Therefore, it does not move when those areas move.

1. Select the (Text) tool in the toolbox.
2. Click once somewhere inside or outside of the schedule, but not on an object.
3. Once you see the flashing cursor, you can begin typing.

Add a SmartColumn which displays symbol text or notes

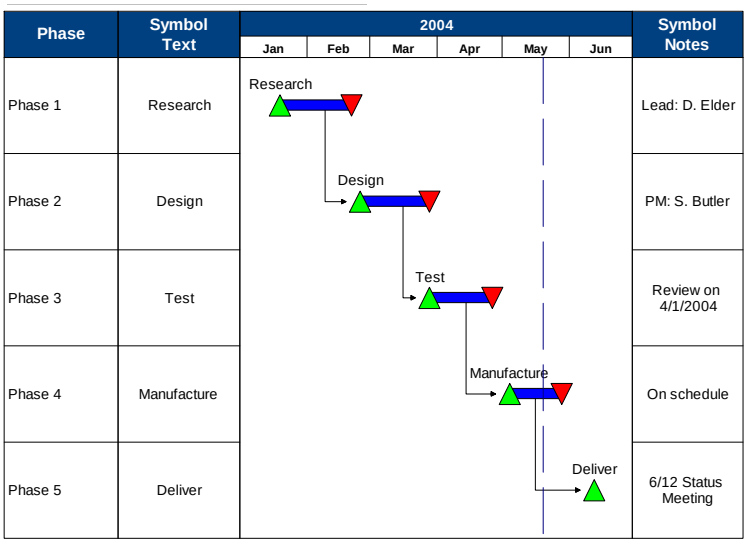
The Symbol Text SmartColumn displays, within the column cell, either the symbol text or symbol notes from a selected symbol type on all task rows.

1. Choose **Insert** | **Column** | **Symbol Text**.
2. Under **Choose symbol**, select the symbol source as the first or last symbol on a task row and the type of symbol.
   - The "first" symbol has the earliest date on the task row.
   - The "last" symbol has the latest date on the task row.
   - Choose “(any symbol)” type on the task row, or a specific symbol type.
3. Under **Choose text source**, select the symbol field whose text should appear in the column.
   - **Symbol Text**: The text from all three lines of symbol text will appear in the column.
   - **Symbol Note**: The text found in the symbol notes field will display in the column.
4. Choose **OK** and make changes under **Column Heading** and **Column Formatting**.


Choose Symbol and Text Source
Choose the symbol and the source of the text for the Symbol Text SmartColumn
Choose symbol:
First symbol in task row (any type)
Last symbol in task row (any type)
First normal symbol in task row
Last normal symbol in task row
First baseline symbol in task row
Last baseline symbol in task row
First comment symbol in task row
Last comment symbol in task row
First status symbol in task row
Choose text source:
Symbol Text
Symbol Note
OK
Cancel

In this example, the text attached to the start symbols automatically displays in the “Symbol Text” column.

The notes embedded in the start symbols automatically display in the “Symbol Notes” column.

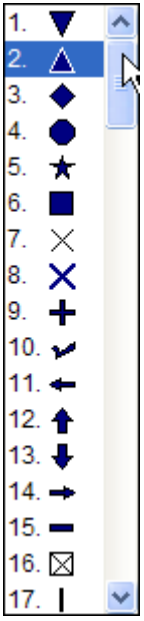


Customize a Symbol in the Toolbox

Any symbol in the toolbox can be changed to another shape, color, size and more. Double-click a symbol in the toolbox to make changes.

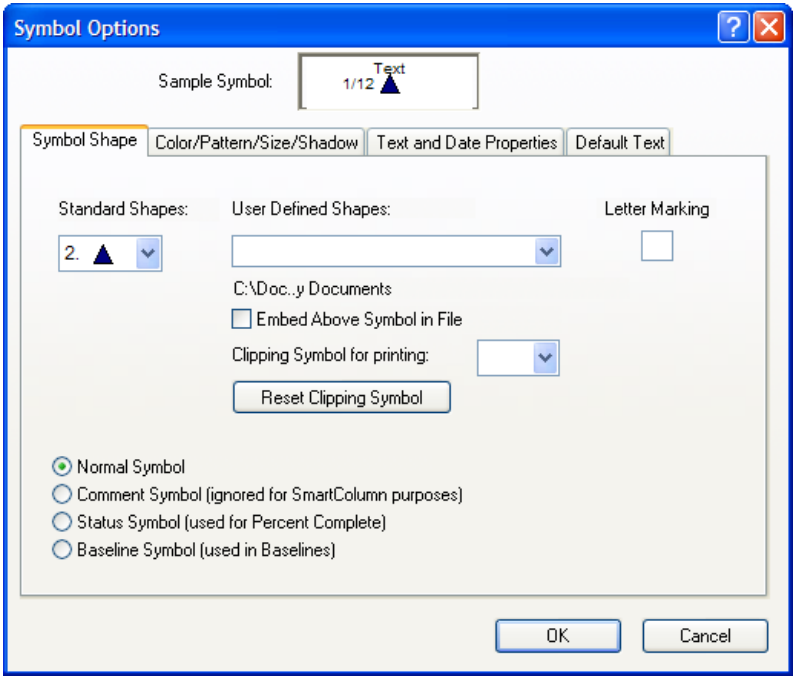
When a symbol in the toolbox is changed, all occurrences of that symbol on the schedule also change. Individual overrides for symbols on the schedule will revert to these new changes, unless you choose otherwise.

See Chapter 3 for more details about symbol formatting.



Choose from these symbol formatting options:

- Shape, letter marking on symbol, user-defined symbol
- Fill color/pattern, outline color/pattern, symbol mark/color
- After-status color for “incomplete” tasks
- Override size
- Type: Normal, Comment, Status, Baseline
- Symbol text and date position
- Symbol position: upper, middle, or lower part of the task line
- Default symbol text
- Shadow

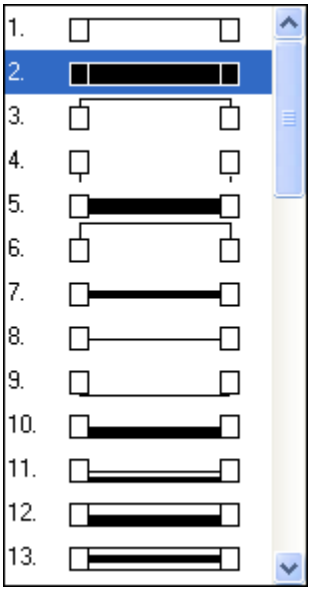


Customize a Horizontal Connector in the Toolbox

Any horizontal connector in the toolbox can be changed to another shape, color, pattern and more. Double-click a horizontal connector in the toolbox to make changes.

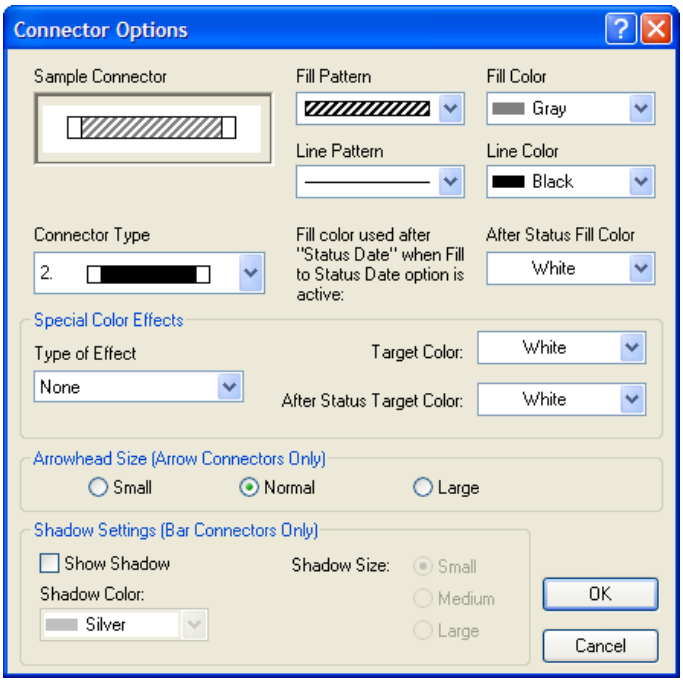
When a connector in the toolbox is changed, all occurrences of that connector on the schedule also change.

See Chapter 3 for more details about horizontal connector formatting.



Choose from these connector formatting options:

- Shape (type)
- Fill pattern and color
- Line pattern and color
- After-status color for “incomplete” tasks
- Fading from a fill color to a target color
- Shadow
- Arrow size, where applicable

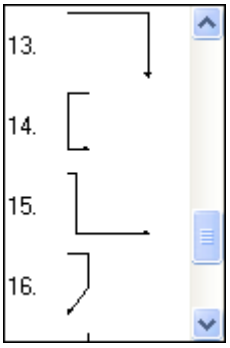


Customize a Vertical Connector in the Toolbox

Any vertical connector in the toolbox can be changed to another shape, color, line pattern and more. Double-click a vertical connector in the toolbox to make changes.

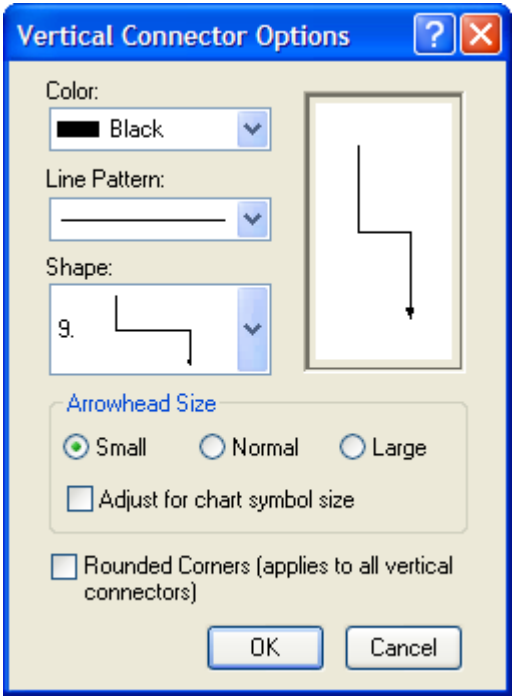
When a connector in the toolbox is changed, all occurrences of that connector on the schedule also change.

See Chapter 3 for more details about vertical connector formatting.



Choose from these connector formatting options:

- Shape
- Line color
- Line pattern
- Arrow size, where applicable
- Rounded connector corners
- Set size relative to symbol size



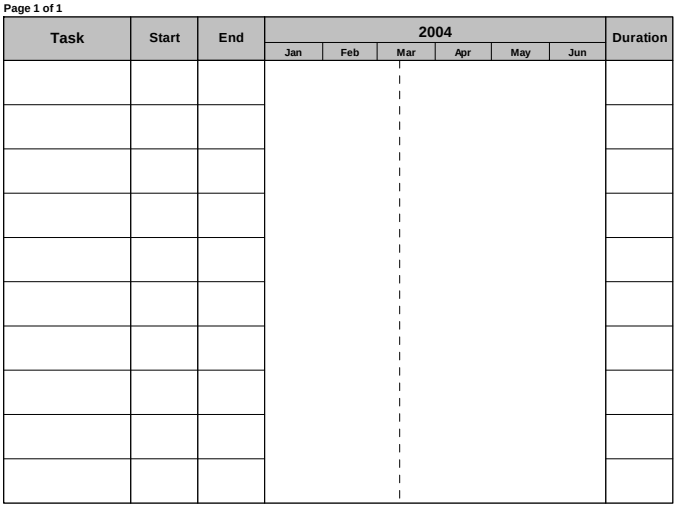
Columns, Column Headings and Task Lines (Rows)

Display as many as ten columns on the left side of the schedule and ten columns on the right side of the schedule. Columns can easily be inserted, deleted, moved or resized.

The column heading contains many formatting controls, including the column and column heading formats, SmartColumn settings, and more.

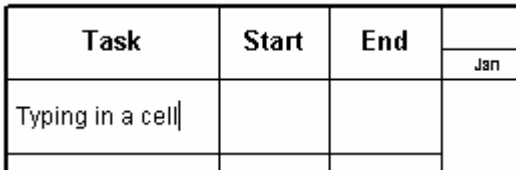
Display 2 to 300 task lines or task rows per schedule page. Row heights can be adjusted individually.

See Chapters 6 and 12 for complete coverage of formatting columns and rows.



To enter text in a task line's column cell

1. Select the T tool in the toolbox.
2. Click within one of the cells in the column area and begin typing.



To move between column cells

Press the arrow keys ← → ↓ ↑ on your keyboard to move between columns and cells.

Add or edit a column or SmartColumn

Schedule columns are used to display text or specialized information (SmartColumn).

SmartColumns automatically fill according to schedule data or entered data. For example, the Duration SmartColumn calculates the length of time between the first symbol and last symbol for each task line.

A Text column displays user-enter text, such as project activities, notes, resource names, and more.

To add a column, choose **Insert** | **Column** and choose **Text**, **MS Project Column**, or any of these SmartColumns:

- ✓ Start Date
- ✓ End Date
- ✓ Percent Complete
- ✓ Duration
- ✓ Task Number
- ✓ Outline Level
- ✓ WBS Number
- ✓ Status Date
- ✓ Used Duration
- ✓ Remaining Duration
- ✓ Time Ahead/Behind
- ✓ Baseline Start
- ✓ Baseline End
- ✓ Baseline Duration
- ✓ ValueSet
- ✓ Values
- ✓ Symbol Count
- ✓ Calculation/Indicator
- ✓ Resource Allocation Percent
- ✓ Symbol Text
- ✓ Stoplight

To change an existing column to another column type, double-click the column heading, choose the **Column Type (SmartColumn) Settings** tab and change the **SmartColumn Definition**.

To edit an existing SmartColumn's properties, double-click the column heading, choose the **Column Type (SmartColumn) Settings** tab and press the **Additional SmartColumn Properties** button (if available).

See Chapter 15 for more information about selected SmartColumns.

See *Milestones Professional Help Topics* under the *Help* menu for more information about the *MS Project Column* option. Index keyword: "MS Project Column."

Bookmark task lines

Add a bookmark name to any task row and then jump to that task row by choosing the bookmark name from a list of bookmarks. The task row which is "jumped to" will be highlighted. Especially helpful in large schedules, this feature allows the user to quickly jump to specific schedule areas.

Bookmark a task line

1. In the toolbox, click the arrow tool .
2. Click once on the task line to be bookmarked.
3. Click the bookmark icon on the toolbar.
    - You may also right-click the task line and choose **Bookmarks**.
4. Select **Create a new Bookmark**.
5. **Key a Name**: Enter a bookmark name or use the default entry. The text in the column closest to the schedule area on the left will display as the default bookmark text.
    - The length of the bookmark name is limited to 29 characters.
    - The *Current Task Line* number indicates the row location of the selected task. Numbering is 1-based and begins with the top-most task line and includes any hidden tasks.
6. Click **Create a Bookmark Now** to bookmark the task line and exit the dialog box.

Jump to a bookmarked task line

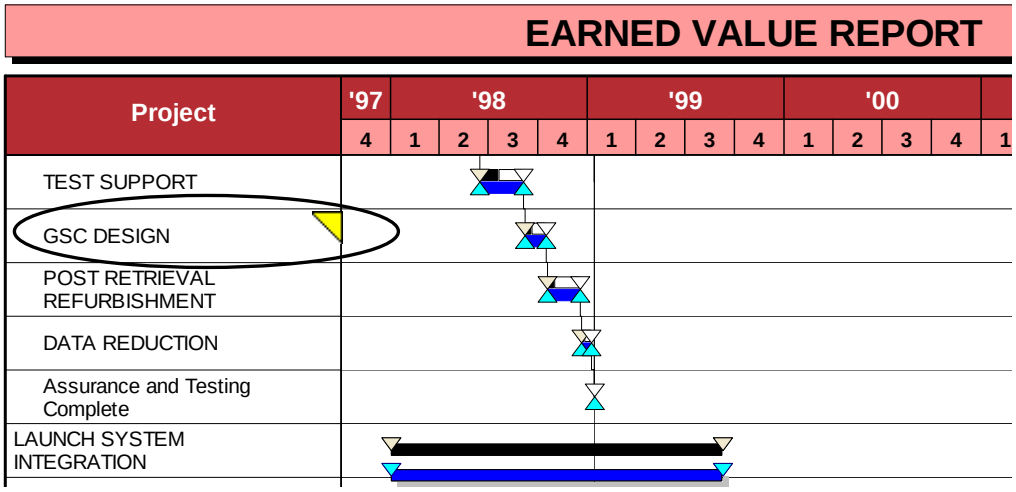
1. Click the bookmark icon on the toolbar.
    - You may also right-click any task line and choose **Bookmarks**.
2. Select **Jump to a Bookmark or Delete a Bookmark**.
3. Under **Select Bookmark**, choose from the list of bookmark names.
    - The *Task line of Bookmark* number indicates the row location of the selected task. Numbering is 1-based and begins with the top-most task line and includes any hidden tasks.
4. Click **Jump to a Bookmark Now**. The schedule jumps to the page containing the bookmarked task line, and the bookmarked task will be highlighted.

Delete one or more bookmarks

1. Click the bookmark icon on the toolbar.
   - You may also right-click any task line and choose **Bookmarks**.
2. Select **Jump to a Bookmark or Delete a Bookmark**.
3. Under **Select Bookmark**, choose a bookmark name to be deleted.
   - The *Task line of Bookmark* number indicates the row location of the selected task. Numbering is 1-based and begins with the top-most task line and includes any hidden tasks.
4. **Delete Selected Bookmark Now**: The selected bookmark will be removed from the list.
5. **Delete all Bookmarks Now**: All bookmarks will be removed from the list. If you have five or more bookmarks a warning message appears reminding you that this operation cannot be undone.
6. Choose **OK / Leave** to exit the dialog box.

Display Bookmark icons

Show Bookmark indicator to display an icon on bookmarked task lines .



Change the column heading properties

Double-click (or right-click and select *Properties*) on the column heading section (the upper cell of the column). The *Column Properties* dialog box will appear.

1. Under the **Column Heading** tab, enter up to 2 lines for the column name.
2. Set the column heading text alignment and text highlights.
3. In the **Heading Colors** section, click **Change** to choose a background shading **Color** and optional **Target Color**.
4. Choose a **Special Effects** setting to fade from the column heading *Color* to *Target Color*.
5. Select a **Font Size** for the column heading text.
6. ☑ **Apply these formatting changes…** to format all column headings like this one. Only formatting options with an * will be applied to the other columns.

Change the column properties

Column properties options control the column's background color, text font size, currency display, decimals, outlining indentation amount and more.

1. Double-click the column heading.
2. Click the **Column Formatting** tab.
3. For **Back Color**, click **Change** to choose a background shading color for the column.
4. Next to **Target Color**, click **Change** to choose a color that the *Back Color* will fade into.
5. Choose **Effects** for the fade setting (fades from *Back Color* to *Target Color*).
6. Choose column text alignment, highlighting, and size.
7. If the column will contain numbers, choose to display the column numbers as currency and set the number of decimals to display.
8. For outlining purposes, enter a value in inches to indent the column text.

Set the Project Start and End Dates

The project start and end dates control the visible date range that appears in the Milestones window.

However, you can still add symbols and connectors outside of this range by scrolling forward and backwards with the Shift+PgUp and Shift+PgDown keys or the left and right scrolling icons on the toolbar.

1. Choose **Format** | **Dates** | **Schedule Details**, or click the icon.
2. Under **Starting Date**, enter a date next to **Entire Schedule**.
    - Click the for a date selection calendar.
3. Under **Ending Date**, enter a date.

Current Date and Current Date Line

The current date, as set by your computer's clock or an override date, can be displayed above the upper right corner of the schedule (by default).

The current date line is drawn vertically across the schedule area at the appropriate date heading location.

Display the current date and current date line

1. Choose **Format** | **Dates** | **Current Date**.
2. **Display Date** to show the current date.
3. **Display Date Line** to show the date line.
4. Under **Date Line Properties**, choose the line type, thickness, and color.
5. Optionally, choose the **Extend Date Line into DataGraph Area** option.

Status Line

Show at-a-glance ahead/behind status with the status line. The status line extends vertically along the current date line. The status line bulges to the left or right according to each task row's status date. Thus, the status line is a visual indicator of ahead/behind status.

This feature requires a check next to either **Format** | **Dates** | **Symbols - Fill to Status Date** or **Connectors - Fill to Status Date**.

The *Symbols - Fill to Status Date* and *Connectors - Fill to Status Date* features cause symbols and bars to be filled with a selected color up to the status date. Another color appears as the fill color after the status date. The color settings are made in the toolbox for each symbol and connector.

Display and format the status line

1. Choose **Format** | **Dates** | **Current Date**.
2. **Display Status Line**.
3. Under **Status Line Properties**, choose a color and line thickness.

The height of the horizontal portion of the status line is equal to the symbol height.

Display Status Line 3 Time Symbol Height to increase the height of the status line by three symbol sizes. This can result in the status line appearing in adjacent task rows, in which case this option is not recommended. This feature is best used in schedules with few task rows per page.

If the status date for every row is the same as the current date, then the status line and current date line will appear along the same vertical line (on top of each other).

Status line and current date line example

Each activity in the schedule below is either on, behind or ahead of schedule. The current date line is the default status driver, while the status symbols (arrows symbols in this schedule) override the current date as the status driver.

For “Project 3” the status line extends to the left of the current date line, indicating that it is behind schedule.

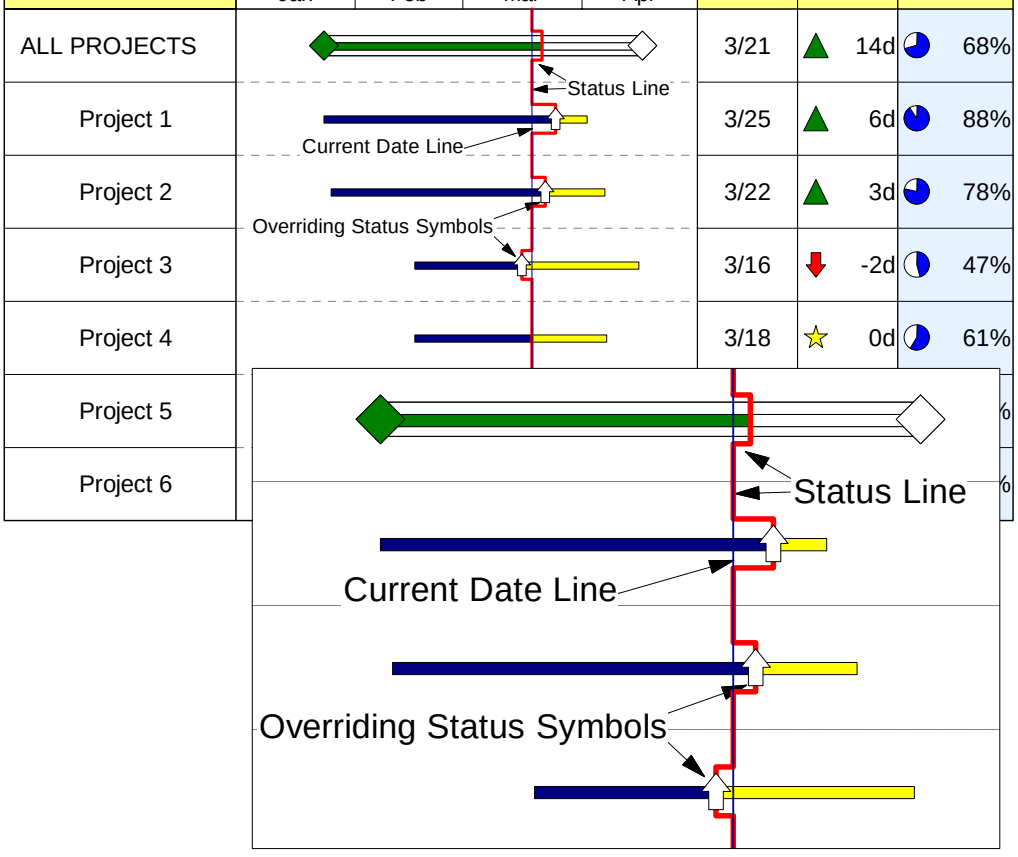
For “Project 1” the status line extends to the right of the current date line, indicating that it is ahead of schedule.

For “Project 4” the status line is in line with the current date line, indicating that it is on schedule.

Percent Complete and Status

Current Date
3/18/05

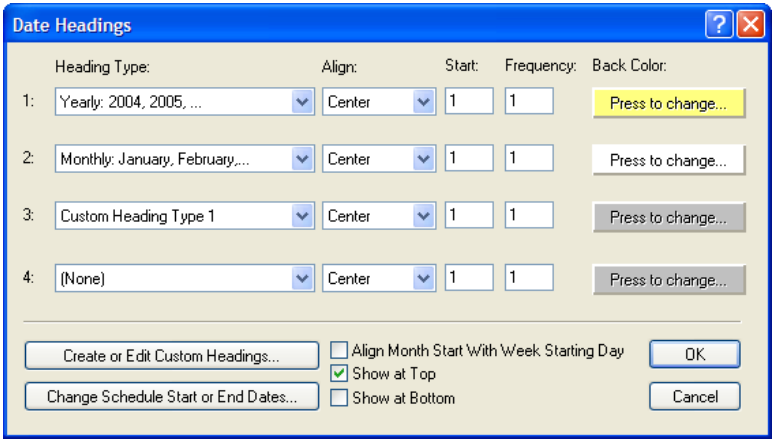
Projects	2005	Status Date	Ahead/ Behind	% Comp.
	Jan Feb Mar Apr			
ALL PROJECTS		3/21	14d	68%
Project 1		3/25	6d	88%
Project 2		3/22	3d	78%
Project 3		3/16	-2d	47%
Project 4		3/18	0d	61%
Project 5				%
Project 6				%



The Date Headings

Display up to four date heading levels with formats ranging from minutes to years to custom entries.

1. To change the date heading display, choose **Format** | **Dates** | **Headings**, or double-click the existing date heading or select the toolbar icon .



2. For each level, choose from more than 35 **Heading Types** (yearly, monthly, etc.).
3. **Align** each heading's text.
4. Choose a **Start** number for the heading.
5. Choose a **Frequency** for the heading.
    - For example, in a yearly heading of a project whose start date is 1/1/2002, with a frequency of 2, the yearly heading would be 2002, 2004, 2006,…
6. Under **Back Color**, choose **Press to change**, and then choose a background color.
7. Choose to display the date headings at the top and/or bottom of the schedule.

See Chapter 6 for a comprehensive treatment of date headings, including custom headings.

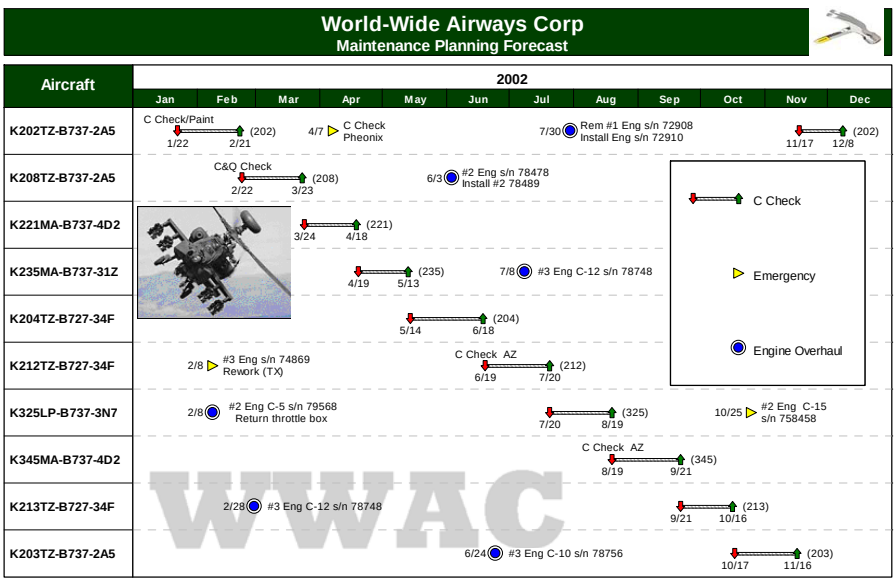
Add Graphics to the Schedule

You can paste graphics anywhere on your schedule.

1. Copy the image (e.g. by right-clicking on an image and choosing “copy”).
2. In Milestones, choose **Edit** | **Paste Picture**.
3. The Paste Picture cursor appears: .
4. Move the cursor to the appropriate location, and then click to paste the image.

-or-

1. Choose **Insert** | **Picture**.
2. Browse to the graphics file, select it, and choose **Open**.
3. The Paste Picture cursor appears: .
4. Move the cursor to the appropriate location, and then click to paste the image.



To resize the graphic, click once on it, hold down the **Shift** key, click-and-hold on a corner of the graphic, and drag to make it larger or smaller. (The Shift key keeps it in proportion.)

Toolbar Shortcuts

Like the sidebar, the toolbar displays shortcut buttons for quick access to perform basic tasks without pulling down a menu. Here is a sampling of your toolbar options:

Start a new schedule

Open an existing schedule

Save schedule

Print

Printer setup

Print preview

Set printing options

Spell check

Bookmark a task line

Scroll date headings to the right

Page layout

Date headings

Schedule details

Outdent

Indent

Symbol maker

Enter values for a task line

OLE drag and drop

Scroll date headings to the left

- To customize your toolbar, right click in any empty space on the bar and choose **Customize Toolbar**, or choose **Tools** | **Customize** | **Toolbar**. You can set up your toolbar with only the icons that you use the most. You can also specify that you want to use larger icons.
- You can choose to show or hide the toolbar. To hide the toolbar, right-click on a section of the toolbar that does not have a tool and choose **Hide Toolbar**. Once hidden, choose **Toolbar** on the **View** menu to bring the toolbar back into view.
- You also have the option to make your toolbar moveable by “undocking” it. To do this, double-click on the toolbar in any section that does not have a tool, or right-click and choose **Undock Toolbar**. Click-and-drag the toolbar to the desired position.
- To “dock” the toolbar again, just double-click on the toolbar, or right-click on a section that does not have a tool and choose **Dock Toolbar**, or drag the toolbar back to the menu bar and drop it.

Keyboard Shortcuts

Keyboard shortcuts are useful when editing a schedule. The following is an abbreviated list of function and key combination shortcuts.

For complete shortcut documentation, consult the *Milestones Professional Help Topics* available under the *Help* menu. Index keyword: "shortcuts."

Pressing this key…	**Causes this action…**
Escape key	Halts current activity when possible.
Tab (or Shift + Tab)	Indents (or outdents) one outline level if the *Use Tab key for Outlining* option is selected – See *Tools* | *Options* | *Edit* menu.
F1	Starts Help. If in dialog box, displays context help for selected control.
F8	Continuous View (toggle).
F9	Redraws the current schedule.
F11	Switches between *Fit in Window* view and current Zoom setting.
F12	Toggles through the first six tools in the toolbox.
Alt+F12	Select horizontal connector in toolbox
Alt+Shift+Right Arrow	Indents (promotes) a task by one outline level.
Alt+Shift+Left Arrow	Outdents (demotes) a task by one outline level.
Ctrl+F12	Select next vertical connector in toolbox
Ctrl+Spacebar	Select next column
Ctrl+W	Change vertical connector coming from selected symbol to type currently selected in toolbox
Alt+Spacebar	Select next task line
Ctrl+Alt+Spacebar	Select next column heading
Ctrl+Shift+Spacebar	Select next Date heading
Shift+F10	Display right-click menu for selected item
Shift F12	Select next symbol in toolbox. If an entire row in the Combo toolbox is highlighted, then Shift+F12 highlights the next row.

Pressing this key…	Causes this action…
Shift+Right Arrow	When a symbol is selected, changes date forward by one minute, hour, day or week (depending upon the setting in *Tools* | *Options* | *General* menu.)
Shift+Left Arrow	When a symbol is selected, changes date back by one minute, hour, day or week (depending upon the setting in *Tools* | *Options* | *General* menu.)
Page Down	Moves to the next page on your schedule
Page Up	Moves to the previous page
Ctrl+Home	Moves to the first page
Ctrl+E	Edits currently selected item
Ctrl+F	View Full-screen toggle
Ctrl+End	Moves to the last page
Ctrl+L	Select next left cell (if a task line or cell is currently selected)
Ctrl+M	Change selected symbol to type currently selected in toolbox
Ctrl+N	Start new schedule
Ctrl+O	Open file
Ctrl+R	Select next right cell (if a task line or cell is currently selected)
Ctrl+U	Change selected connector to type currently selected in toolbox
Ctrl+Alt+G	Switch to Calendar View
Ctrl+Alt+S	Start Symbol Maker Program
Ctrl+Z	Undo

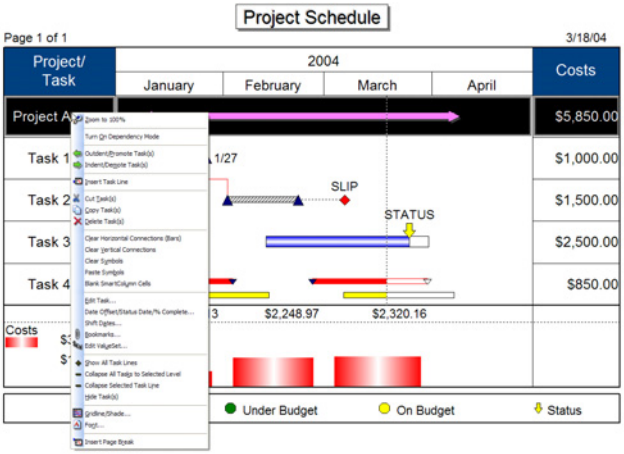
Right-Click "Context Sensitive" Menus

A right-click on any part of the schedule will activate a shortcut menu with a list of options.

Right-click a column heading to hide it, show all column, access column properties and more.

Right-click the toolbox to change its properties, access the sidebar options, and more.

Below are the detailed options for two right-click areas:



Right-click on a task line's column cell to access these functions:

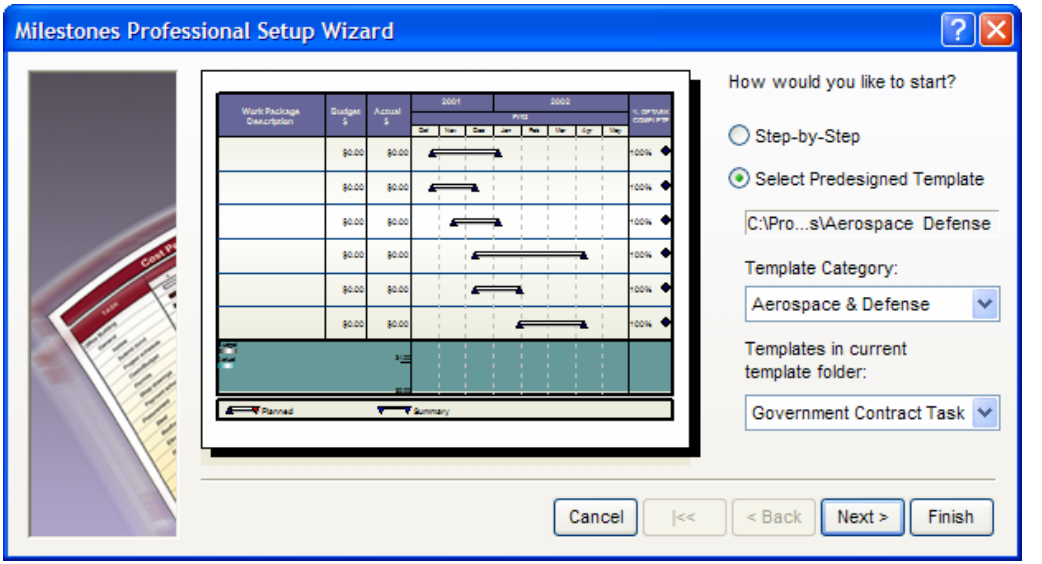
- Zoom
- Turn dependency mode on/off
- Indent for outlining
- Insert, cut, copy, delete task line
- Deleted cell text
- Clear and paste symbols, connectors
- Blank SmartColumn cells' entries
- Edit task information
- Date offset, status date, percent complete
- Bookmark task line
- Edit task's ValueSets
- Expand, collapse, hide tasks
- Task line font, gridlines, shading
- Insert page break

Right-click a symbol on the schedule to access these functions:

- Zoom
- Turn dependency mode on/off
- Copy symbol/bar for paste
- Delete symbol
- Deleted connectors attached to symbol
- Change symbol text font
- Select symbol's task line
- Schedule a recurring task
- Access symbol properties: text, notes, size, color, text/date position, hyperlink, constraint, ValueSet, symbol links
- Select this symbol in the toolbox

Schedule Setup Wizard

To launch the **Milestones Professional Setup Wizard**, choose **File** | **New**. This wizard will walk you through the setup of your schedule either step-by-step or guide you through using a pre-designed template. Follow the Wizard's prompts to successfully complete the desired layout for your new schedule.



Choose the **Select Predesigned Template** option to select from a wide variety of templates that are pre-formatted. Templates are organized by industry and by common usage, for example baseline scheduling, earned value reports, stoplight schedules and more.

Select a **Template Category** and then a specific template.

See Chapter 12 for more details.

Save a Schedule

Save Milestones schedules under the same name, a new name, or in the previous version's format. Choose **File** | **Save** | **Chart** or **File** | **Save As** | **Chart**.

For faster saving or opening across a network, choose **Tools** | **Options** | **General** and check **Two Stage File Saves** and **Two Stage File Reads**.

View Options

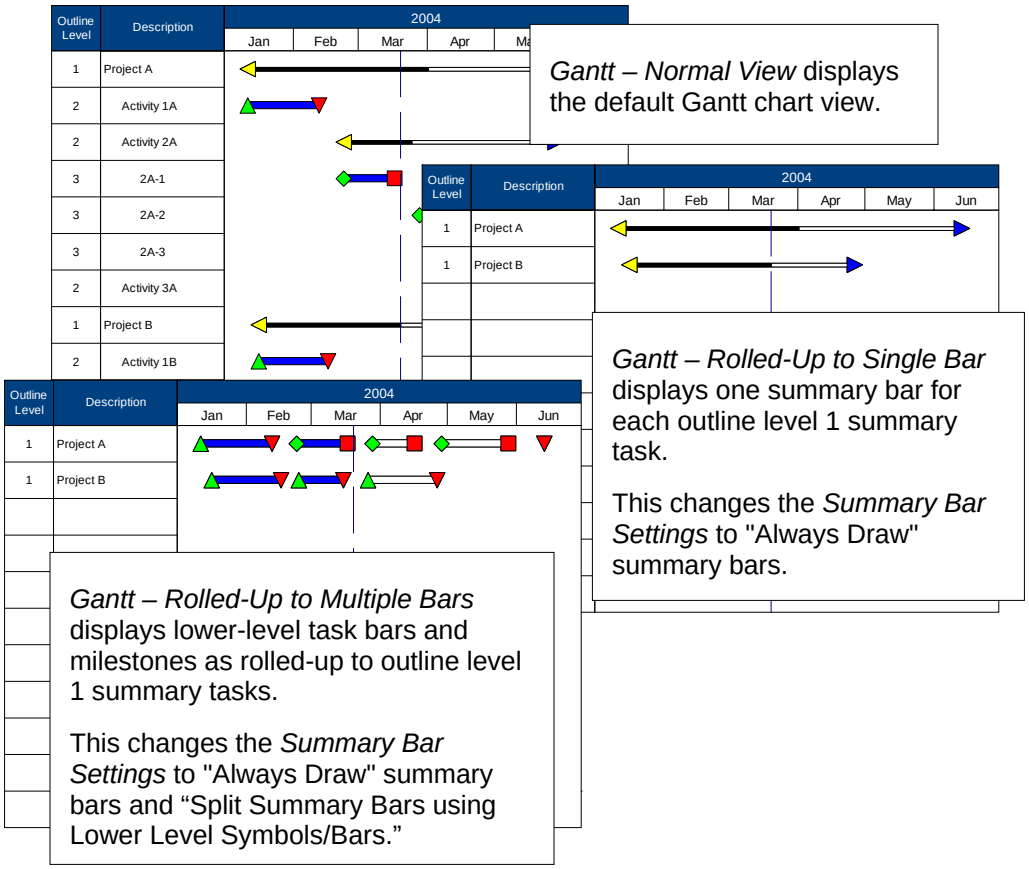
On the **View** menu, the **View Mode** option enables you to select additional views, including Gantt – Normal (the default view), summary Gantt views, Continuous view, Full Screen view, Presentation Mode, and Calendar view.

Gantt views

A Milestones schedule can be toggled between three Gantt chart view modes.

To switch from one Gantt view to another choose **View** | **View Mode**.

1. *Gantt - Normal View*: This is the default Gantt display.
2. *Gantt - Rolled-Up to Single Bar*: The schedule is rolled-up (collapsed) to the highest outline level and displays single summary bars.
3. *Gantt - Rolled-Up to Multiple Bars*: The schedule is rolled-up (collapsed) to the highest outline level and displays all sub-tasks' milestones and task bars.


Outline Level
Description
2004
Jan
Feb
Mar
Apr
May
Jun
1 Project A
2 Activity 1A
2 Activity 2A
3 2A-1
3 2A-2
3 2A-3
2 Activity 3A
1 Project B
2 Activity 1B
1 Project A
1 Project B
Gantt – Normal View displays the default Gantt chart view.
Gantt – Rolled-Up to Single Bar displays one summary bar for each outline level 1 summary task.
This changes the Summary Bar Settings to "Always Draw" summary bars.
Gantt – Rolled-Up to Multiple Bars displays lower-level task bars and milestones as rolled-up to outline level 1 summary tasks.
This changes the Summary Bar Settings to "Always Draw" summary bars and “Split Summary Bars using Lower Level Symbols/Bars.”

Continuous view

Continuous view allows you to scroll through the list of tasks (vertically) and scroll the timescale forwards and backwards (horizontally). In Continuous view, the columns are locked-down, while scroll buttons allow for moving the timescale and task rows in view.

Choose **View** | **View Mode** | **Continuous** or press **F8** to toggle Continuous view mode.

Use the PageUp and PageDown keys to scroll a specified number of task rows, from 1 to 40, as set under **Tools** | **Options** | **Edit**. Enter a value next to **Lines to Scroll for PgUp/PgDn in Continuous View**.

Full Screen view

Full Screen mode displays your schedule at the largest size possible for your monitor, by eliminating the toolbar, status bar and menus. The sidebar and/or toolbox are available if needed, but can be hidden.

Choose **View** | **View Mode** | **Full Screen** or press **Ctrl+F** to toggle the Full Screen view.

To exit Full Screen view, press **Ctrl+F** or the **Esc** key.

Presentation view mode

Use the Presentation view mode to present one or a series of separate Milestones schedules as a "slide show" with a full screen option and schedule manipulation controls.

Before using Presentation Mode, change your *File* | *Printing Options* setting to *Scale to Fit Selected Paper Size*. This ensures that the schedule pages will be scaled to fit the screen.

Choose **View** | **View Mode** | **Presentation Mode** to display the Presentation view.

Use the left and right mouse buttons to zoom in and zoom out, respectively. Use the arrows keys to pan around the schedule.

Press the Esc key to exit Presentation view mode.

See Chapter 13 for more details.

Calendar View

You can show any schedule in Calendar View. Choose **View** | **View Mode** | **Calendar View**.

If a single task line has been selected prior to entering Calendar View, then the connectors as well as the symbols on the line will be shown in the Calendar View.

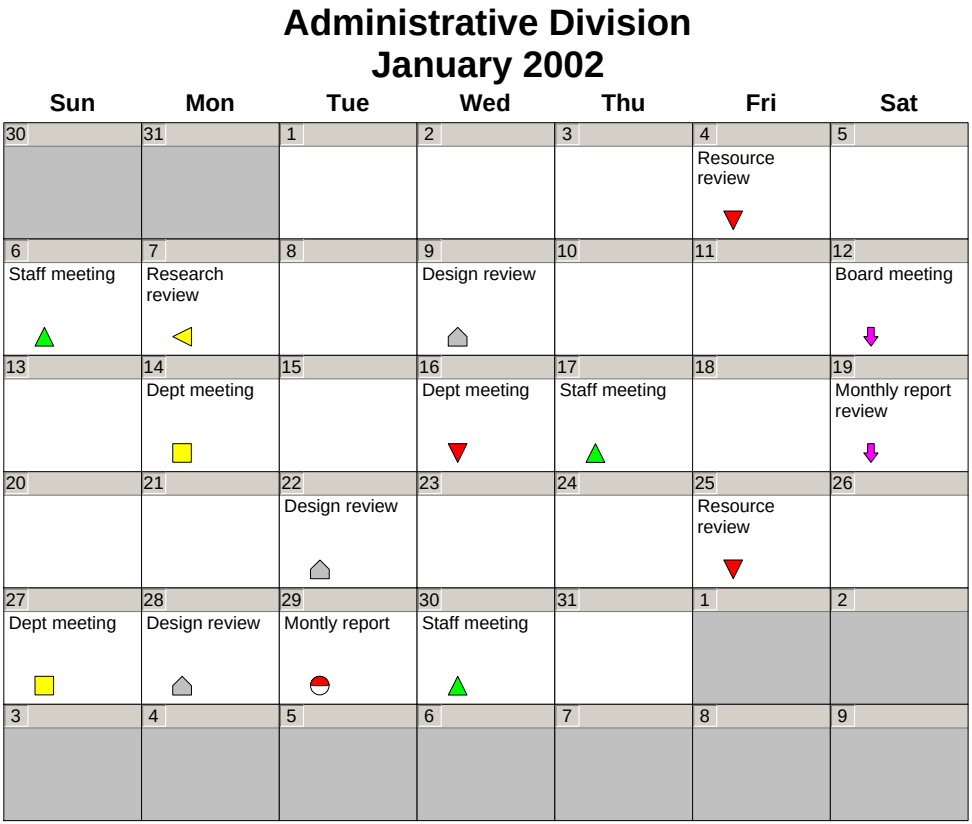
If no lines are selected then all symbols will be shown (horizontal connectors are not displayed due to space limitations). Any free-form text entered in Gantt view will not be shown. Any text entered in Calendar View will be shown just in Calendar View.

If two or more task rows are selected, only symbols from those task rows will be displayed in Calendar View.

If some task rows are hidden, then only visible task rows' symbols will be displayed.

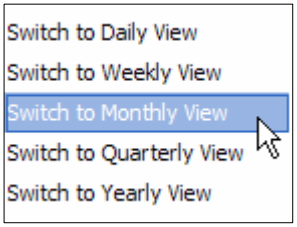
Use the **PageUp** and **PageDown** keys to scroll from month to month.

The following schedule is being viewed in Calendar View:



Views by time period

Instantly switch the time period displayed in the date headings to a daily, weekly, monthly, quarterly, or yearly view.



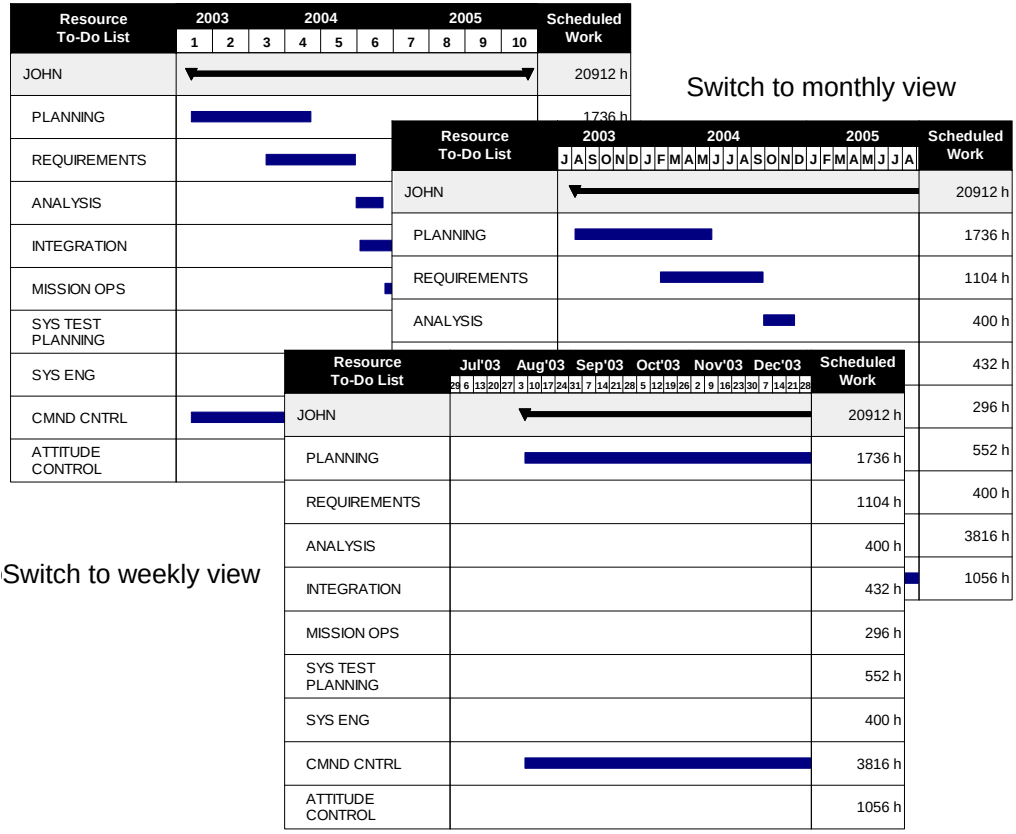
For example, expand the viewable schedule area to a large time-frame (*Yearly View*) or contract to a small-time-frame (*Daily View*).

Simply right-click the date heading and select a view, including your original view.

The schedule's start date remains the same when switching between views, while the number of days, weeks, months, quarters or years displayed is based on font size and the amount of horizontal space available to display the selected time periods.

If the schedule is saved and closed before choosing *Switch back to Original View*, then the Original View time period cannot be recovered.

Original View


Resource To-Do List
2003
2004
2005
1 2 3 4 5 6 7 8 9 10
Scheduled Work
JOHN 20912 h
PLANNING
REQUIREMENTS
ANALYSIS
INTEGRATION
MISSION OPS
SYS TEST PLANNING
SYS ENG
CMND CNTRL
ATTITUDE CONTROL
Switch to monthly view
J A S O N D J F M A M J J A S O N D J F M A M J J A
JOHN 20912 h
PLANNING 1736 h
REQUIREMENTS 1104 h
ANALYSIS 400 h
Switch to weekly view
Jul'03 Aug'03 Sep'03 Oct'03 Nov'03 Dec'03
29 6 13 20 27 3 10 17 24 31 7 14 21 28 5 12 19 26 2 9 16 23 30 7 14 21 28
JOHN 20912 h
PLANNING 1736 h
REQUIREMENTS 1104 h
ANALYSIS 400 h
INTEGRATION 432 h
MISSION OPS 296 h
SYS TEST PLANNING 552 h
SYS ENG 400 h
CMND CNTRL 3816 h
ATTITUDE CONTROL 1056 h

Duration View

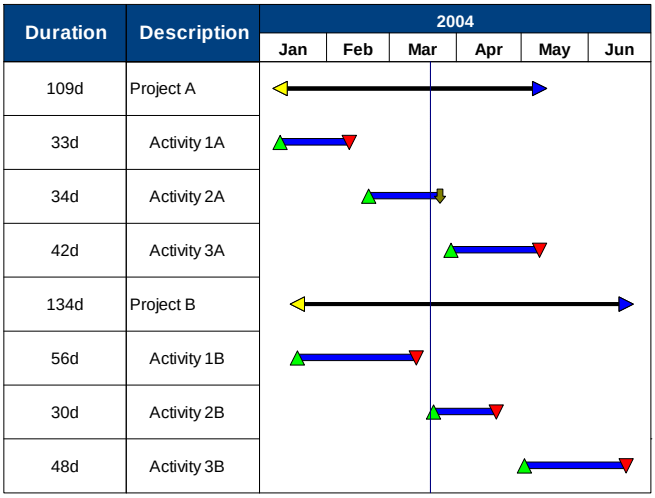
The Duration View mode replaces the Gantt bars and milestones with bar graphs indicating each task's duration.

A bar's length corresponds to a task's duration value. The gray fill indicates the completed portion. The longest duration uses the full width of the schedule area.

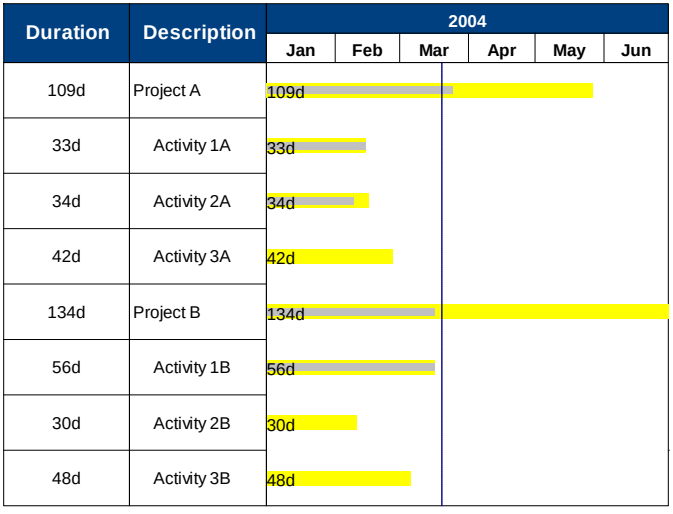
The duration bars do not represent start and stop dates.

To display the Duration View, choose **View** | **View Mode** | **Duration View**.

The duration values and duration bars are based on the *Duration Display Settings* under the *Format* menu.



Gantt View



Duration View

✍ The default bar color is red and can be changed to another color under *Tools* | *Options* | *View*.

Percent Complete view

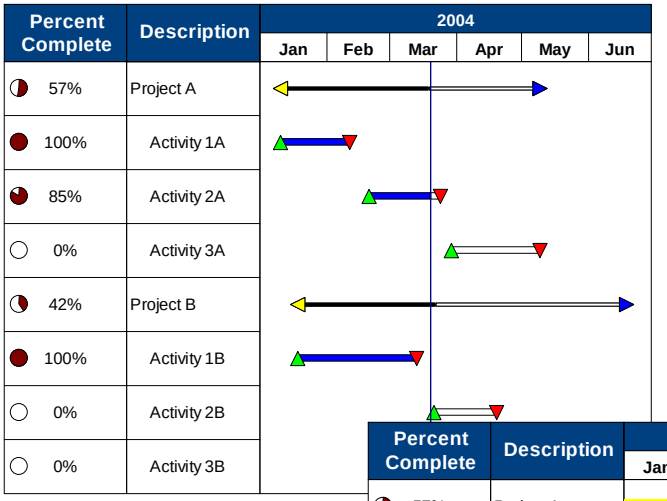
The Percent Complete view mode replaces the Gantt bars and milestones with bar graphs indicating each task's percent complete.

Each task displays a red bar indicating its percent complete. A bar's length corresponds to a task's percent complete value in relation to the date heading length. That is, a task which is 50% complete will display a red bar which traverses half of the date heading's length.

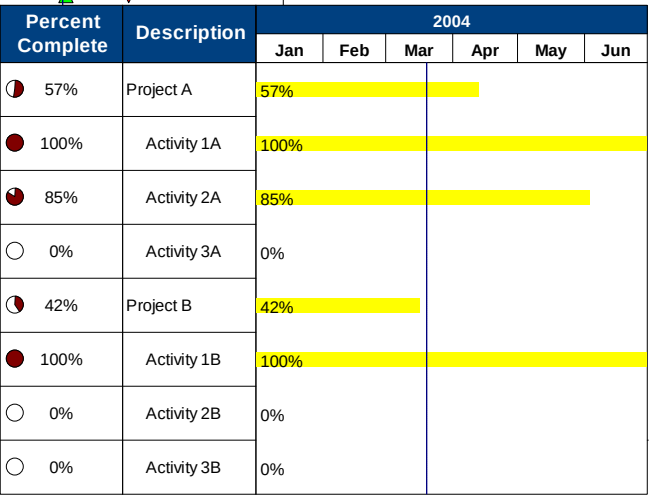
The percent complete bars do not represent start and stop dates.

The summary percent complete red bar ignores any overriding status symbol placed on the summary line.

To display the Percent Complete view, choose **View** | **View Mode** | **Percent Complete**.



Gantt View



Percent Complete view

✍ The default bar color is red and can be changed to another color under *Tools* | *Options* | *View*.

Chapter 3: Customizing the Toolbox and Sidebar

The toolbox contains the building blocks of your schedule: symbols, horizontal connectors, and vertical connectors, as well as the tools used in building your schedule. Any of these symbols and connectors can be changed to a different shape, color, pattern, and more.

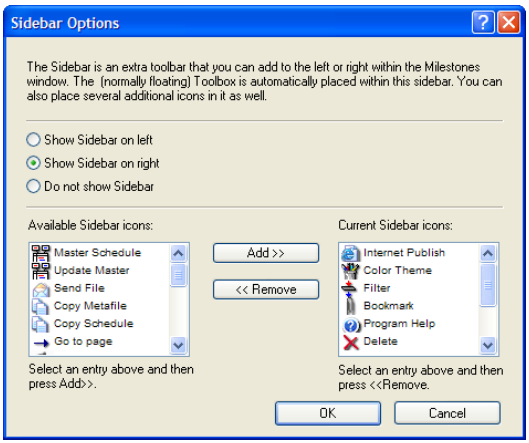
All of the toolbox settings are unique to the current schedule. Thus, if you make a toolbox change in one schedule, it does not affect any of your other schedules.

If the sidebar option is selected, the toolbox automatically appears within the sidebar.

Sidebar

The optional sidebar is an extra toolbar anchored to the left or right side of the Milestones window. The sidebar contains the toolbox (which is normally free-floating) and a user-defined list of shortcut buttons for a variety of activities.

Changes made in the *Sidebar Options* dialog box apply to all schedules.



To display the sidebar:

1. Choose **Tools** | **Customize** | **Sidebar Options**.
2. Select either **Show Sidebar on left** or **Show Sidebar on right**.
3. You must close and restart Milestones for these changes to take effect.

To remove the sidebar

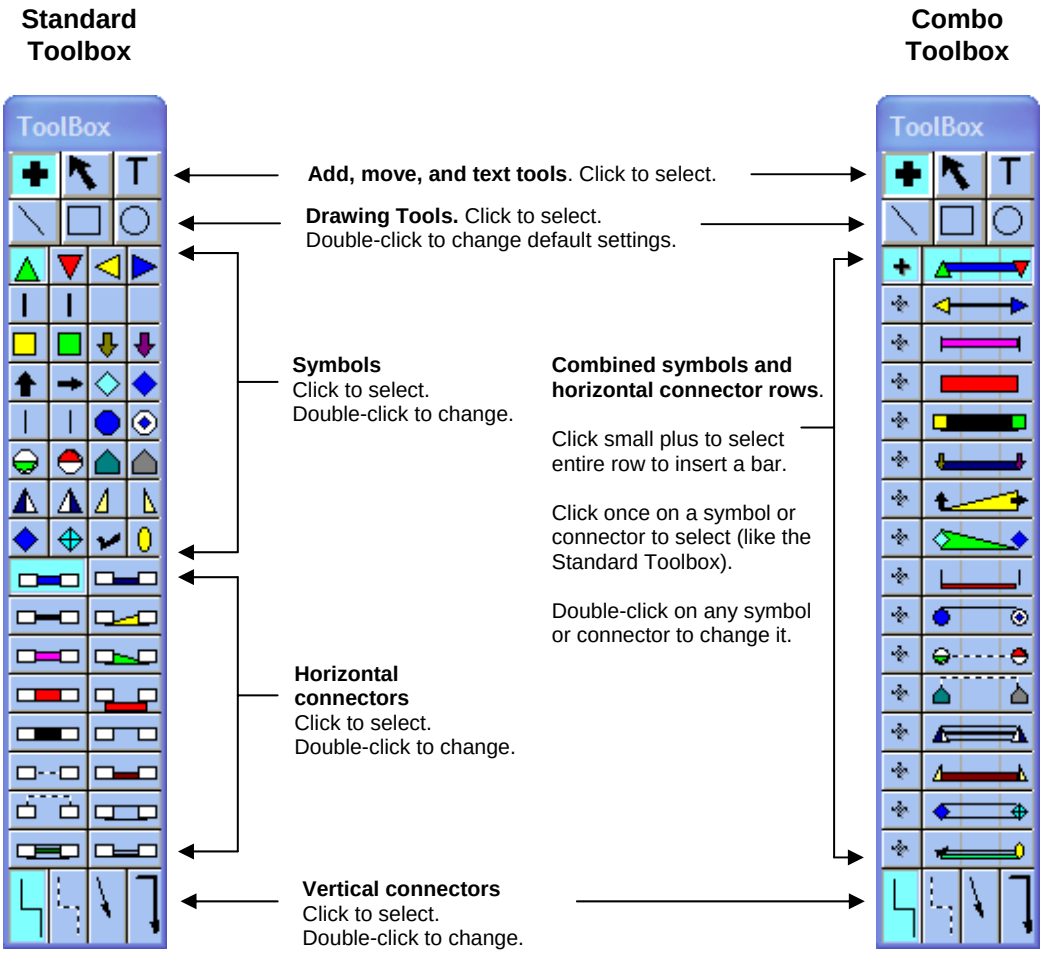
1. Choose **Tools** | **Customize** | **Sidebar Options**.
2. Select **Do not show Sidebar**.
3. You must close and restart Milestones for these changes to take effect.

To add and remove selected sidebar icons:

1. Choose **Tools** | **Customize** | **Sidebar Options**.
2. Add sidebar icons: Select from the list of **Available Sidebar icons** and then click **Add>>**.
3. Remove sidebar icons: Select from the list of **Current Sidebar icons** and then click **<<Remove**.

Combo and Standard Toolboxes

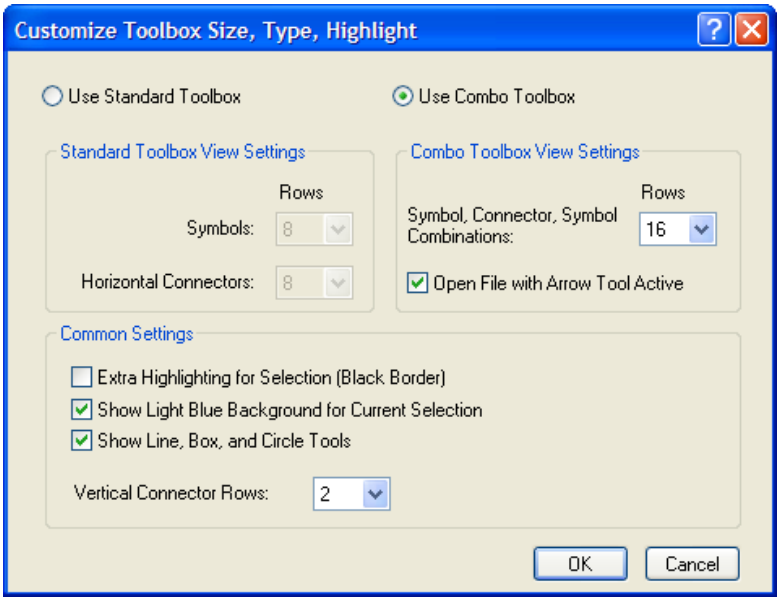
There are two versions of the toolbox. The Standard Toolbox groups the symbols and connectors separately, while the Combo Toolbox combines two symbols and one horizontal connector on each row for symbol/connector/symbol combinations. The Plus, Arrow, and Text Tools; vertical connectors, and drawing tool sections are the same:


Standard Toolbox
Combo Toolbox
ToolBox
ToolBox
Add, move, and text tools. Click to select.
Drawing Tools. Click to select.
Double-click to change default settings.
Symbols
Click to select.
Double-click to change.
Combined symbols and horizontal connector rows.
Click small plus to select entire row to insert a bar.
Click once on a symbol or connector to select (like the Standard Toolbox).
Double-click on any symbol or connector to change it.
Horizontal connectors
Click to select.
Double-click to change.
Vertical connectors
Click to select.
Double-click to change.

Set Toolbox Size and Type

Since the toolbox can take up a significant amount of screen space, you can customize it to remove rows of tools, symbols, and connectors that you do not need for the schedule you are working on.

1. Right-click the toolbox and choose **Toolbox Properties**.



2. Choose **Use Standard Toolbox** or **Use Combo Toolbox**.
3. For the Standard Toolbox, select the number of symbols and horizontal connectors that should display. For the Combo Toolbox, select the number of symbol/connector/symbol rows that should display.
4. The Combo Toolbox offers the option of **activating the Arrow Tool** when this schedule is opened. This prevents accidentally adding symbols and connectors.
5. **Extra Highlighting** provides a black outline for selected items in the toolbox.
6. **Show Light Blue**…provides a blue background for selected items in the toolbox.
7. Choose to show or hide the drawing tools.
8. Choose to display 0, 1, or 2 rows of **Vertical Connectors**.

Toolbox: Free-floating or Anchored in the Sidebar

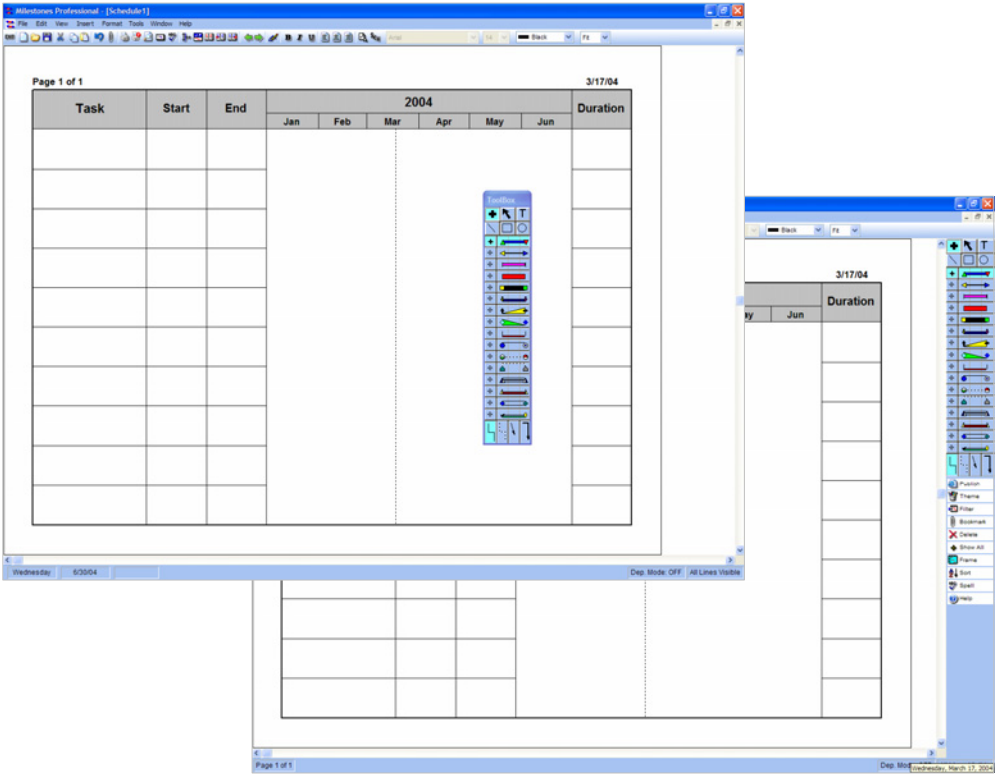
Choose to display the toolbox as free-floating or choose to display the sidebar, in which case the toolbox is automatically displayed within the sidebar. You cannot display the sidebar without the toolbox within it. You cannot display a free-floating toolbox and a sidebar.

To display a free-floating toolbox:

1. Choose **Tools** | **Customize** | **Sidebar Options**.
2. Select **Do not show Sidebar**.
3. You must close and restart Milestones for these changes to take effect.

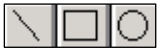
To display the toolbox within the sidebar:

1. Choose **Tools** | **Customize** | **Sidebar Options**.
2. Select either **Show Sidebar on left** or **Show Sidebar on right**.
3. You must close and restart Milestones for these changes to take effect.



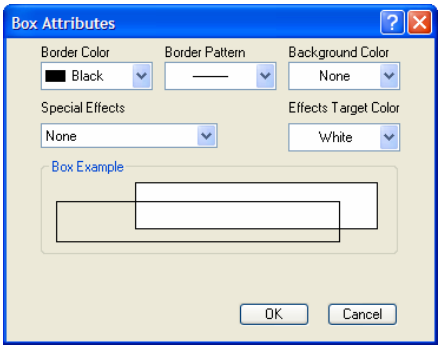
Set Drawing Tools Defaults

The default settings for lines, boxes, and circles that you add to a schedule are black for color and lightweight for line type. You can alter these default values by double-clicking on the Line, Box, or Circle tool in the toolbox.



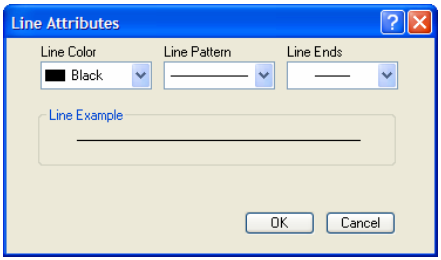
Box drawing tool

Change the Border Color, Border Pattern, Background Color, Target Color, and fading Special Effects. The Special Effects setting will fade the Background Color into the Target Color.



Line drawing tool

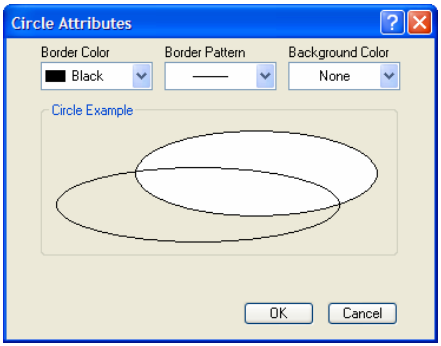
Change the Line Color, Line Pattern, and Line Ends (to create an arrow).



Circle drawing tool

Change the Border Color, Border Pattern, and Background Color.

To add any of these shapes, click once on the tool, then click-and-drag in the schedule area to draw.

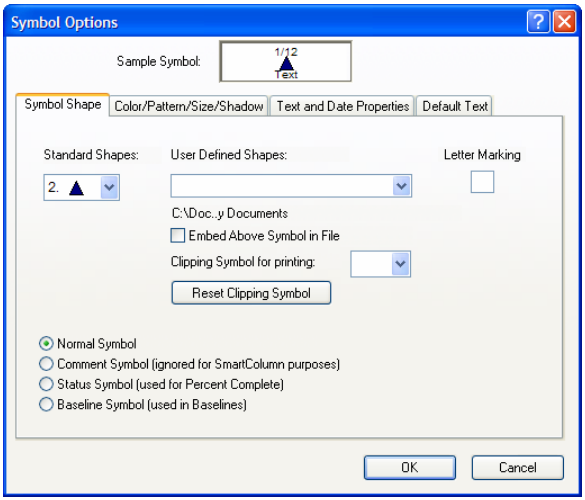


You can customize the attributes of any line, box, or circle that is already on your schedule by double-clicking directly on the object. When you do, a similar dialog box appears that lets you change the setting of just that object.

Set Symbol Defaults

To change the attributes of a symbol in the toolbox, double-click on the symbol in the toolbox. Any changes to the symbol in the toolbox will affect occurrences of that symbol on the schedule. That is, when the new changes replace the old, all occurrences of the old symbol type on the schedule are replaced by the new settings.

Choose symbol shape, type, letter mark and user-defined symbols



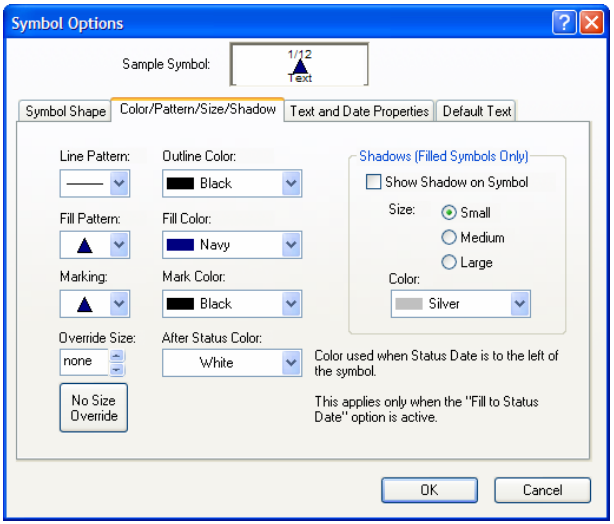
To set a symbol's defaults:

1. Double-click a symbol in the toolbox.
2. Click the **Symbol Shape** tab.
3. Click a drop-down arrow to view the options.

The **Sample Symbol** changes to match your selections, as you make them.

- Choose from more than 95 **Standard Shapes**.
- **Letter Marking**: Enter one letter or number to appear with the symbol. Select Symbol Shape #28 or #33 to show just the letter marking as the symbol.
- Choose from one of four symbol types:
    - **Normal**: This is the default symbol type, used for most situations. Used in start date, end date, duration, and other SmartColumns.
    - **Comment**: This symbol type is ignored for SmartColumn purposes. Use this symbol type for additional symbol text or symbol notes.
    - **Status**: This symbol type is used for controlling percent complete.
    - **Baseline**: This symbol type is used for baseline SmartColumn calculations.
- If you have created your own symbol, and that symbol is in the Symbols folder, select it under **User-Defined Shapes**. Optionally, choose to embed it in the schedule.

Choose symbol color, pattern, marking, after status color, shadow



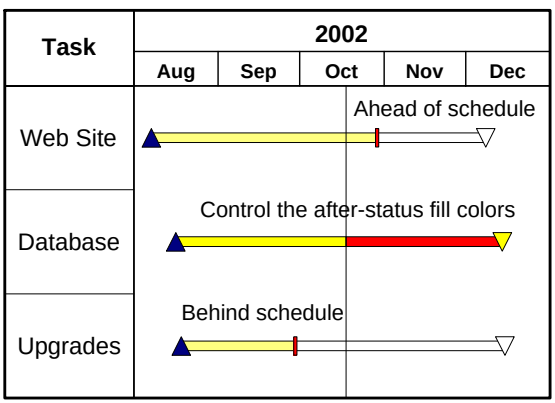
To set a symbol's defaults:

1. Double-click a symbol in the toolbox.
2. Click the **Color/Pattern/Size/ Shadow** tab.
3. Click a drop-down menu to view the options.

The **Sample Symbol** changes to match your selections, as you make them.

- Choose the **Line Pattern** and **Outline Color** that encompasses the symbol.
- Choose a **Fill Pattern** and **Fill Color** that fills the inside of the symbol.
- Choose a symbol **Marking** pattern and **Mark Color**, such as \ or \\ through the symbol; a box or circle enclosing the symbol, and more.
- The **After Status Color** is the fill color of the symbol after (to the right of) the status date. The status date is controlled by a status symbol or current date line.

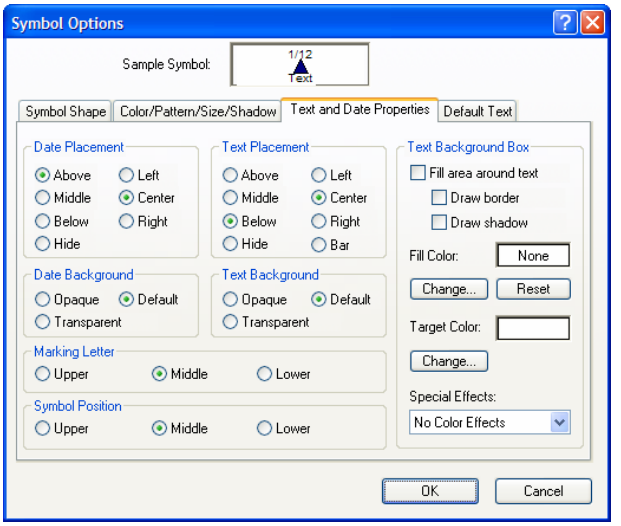
  ✍ To activate the "fill to status" feature, choose **Format** | **Dates** | **Symbols Fill to Status Date.**



- Choose a **Shadow** color and size.
- Set an **Override Size** for this symbol only. This override will apply to all symbols of this type that already exist on the schedule (optionally) and all future symbols of this type that are placed on the schedule. Note that connectors continue to be displayed at the size that is based upon the symbol size for the entire schedule.

Choose positioning for symbol text, date, marking letter, symbol

Set the position of the symbol date, symbol text, marking letter, and symbol itself, as well as the symbol text background colors, and the text and date background degree of transparency.



To set a symbol's defaults:

1. Double-click a symbol in the toolbox.
2. Click the **Text and Date Properties** tab.
3. Click a drop-down menu to view the options.

The **Sample Symbol** changes to match your selections, as you make them.

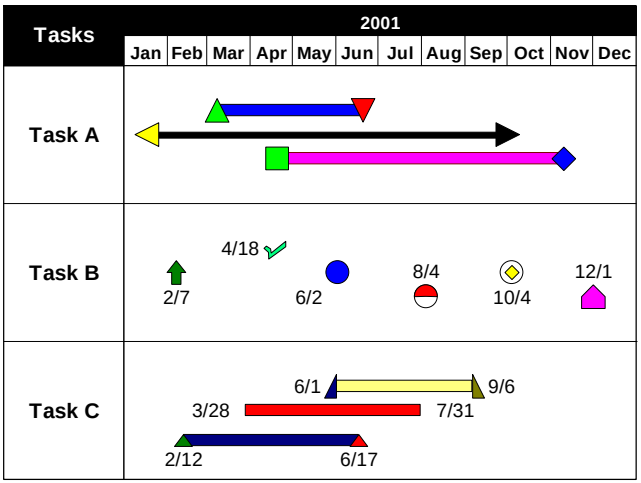
- Set the **Date Placement** as Above, Middle, Below (vertical positioning); and Left, Center, Right (horizontal positioning). Or, Hide the date.
- Set the **Text Placement** as Above, Middle, Below (vertical positioning); and Left, Center, Right (horizontal positioning). Or, Hide the text.
- To add a **Text Background** color, check **Fill area around text** and click **Change** under **Fill Color** to choose a color.
    - Choose a **Target Color** and **Special Effects** for fading from the Fill Color into the Target Color.
    - Choose **Draw Border** to frame the background.
    - Choose **Draw Shadow** for a gray text box shadow.
- For **Date Background** and **Text Background**:
    - **Opaque** causes a solid background to appear under the text to keep underlying lines from going through the text.
    - **Transparent** causes the text to not obscure any underlying graphics.
    - **Default** is usually the same as Opaque, depending upon your current printer and display.

- For **Symbol Position**, choose Upper, Middle, or Lower as the vertical placement within a task line.
- For **Marking Letter**, choose Upper, Middle, or Lower as the vertical placement within the symbol.

Symbol Positioning Example

This schedule has three task lines. Within each task line, the symbols are positioned vertically as upper, lower, and middle.

The connectors follow the positioning of the symbols to which they are attached.



Change a symbol's position

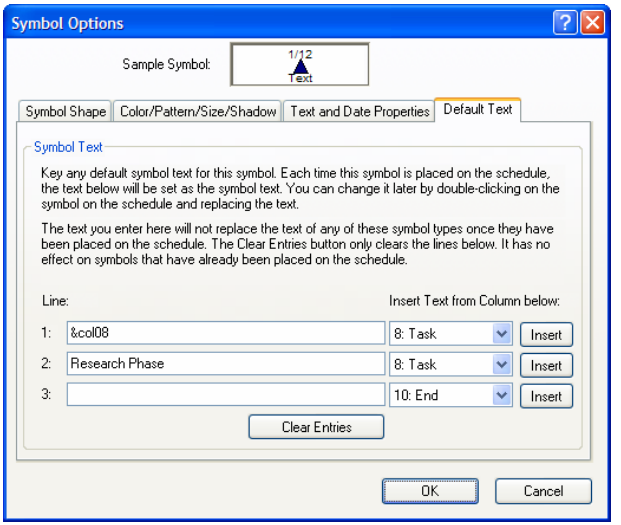
1. Click once on the symbol on the schedule.
2. Hold the **Shift** key.
3. Press the **up arrow** key or **down arrow** key to shift the symbol position.

✍ If you change the settings for a symbol in the toolbox and that symbol already exists on the schedule, all the affected symbols are checked to see if they have individual settings that differ from the new default settings. If so, you are given the opportunity to keep the individual override settings.

Choose default symbol text

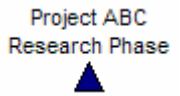
Assign up to three lines of text to each symbol in the toolbox. When a symbol with Default Text is added to the schedule, both the symbol and text appear.

The text is based on user-entered text or text from a selected column.


Symbol Options
Sample Symbol:
1/12
Text
Symbol Shape
Color/Pattern/Size/Shadow
Text and Date Properties
Default Text
Symbol Text
Key any default symbol text for this symbol. Each time this symbol is placed on the schedule, the text below will be set as the symbol text. You can change it later by double-clicking on the symbol on the schedule and replacing the text.
The text you enter here will not replace the text of any of these symbol types once they have been placed on the schedule. The Clear Entries button only clears the lines below. It has no effect on symbols that have already been placed on the schedule.
Line:
Insert Text from Column below:
1: &col08
8: Task
Insert
2: Research Phase
8: Task
Insert
3:
10: End
Insert
Clear Entries
OK
Cancel

To set a symbol's defaults:

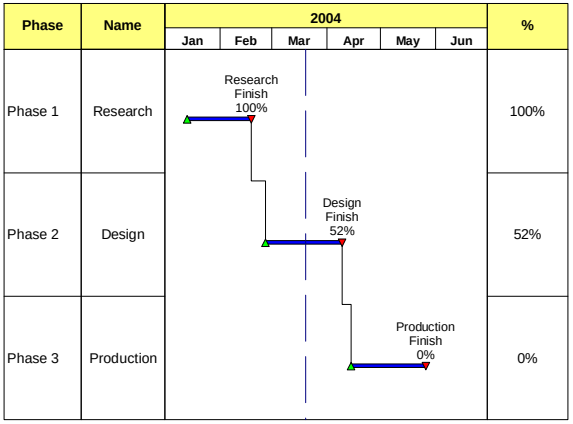
1. Double-click a symbol in the toolbox.
2. Click the **Default Text** tab.
3. Click a drop-down menu to view column names.



✍ Enter up to 58 characters for each default text line.

Text attached to any symbol already on the schedule will not be affected by changes to the *Default Text*. That is, changes to the *Default Text* only affect symbols that subsequently get added, not those already on the schedule.

- For user-entered text, under **Line**, enter the text to appear when this symbol is added to the schedule.
- For a column's text to appear as the default text, under **Insert Text from Column below**, select an existing column from the drop-down list, then press **Insert**.
- Repeat by assigning user-entered text and/or column-based text for up to three lines of symbol text.



Override Settings of Symbols Placed on the Schedule

Symbol settings can be overridden on a symbol-by-symbol basis once a symbol is placed on the schedule.

Override a symbol's color, date/text placement, size and more

Override the symbol fill color, date and text placement, transparent or opaque background setting, symbol size, symbol's vertical position within the task line, and symbol text color.

1. Click the tool.
2. Double-click the symbol on the schedule.
3. Under the **Text** tab, change the date and text placement, transparent or opaque background setting.
4. Under the **Size/Color/Summary** tab, change the symbol fill color, symbol size, symbol position within the task line, and symbol text color.

Override symbol text color and styles, line-by-line

Each symbol can have three rows of symbol text. Each of those text rows can be individually formatted, as an override to the default symbol text settings.

1. Click the tool.
2. Double-click the symbol on the schedule.
3. Click the **Text Overrides** button for a symbol **Text Line**.
4. Set color and text attributes, including bold, italic, and underline.
5. Repeat as needed for other symbol text entries.

Hide all symbol date and text displays

To hide date and text display for all symbols on the schedule, choose **View** | **Override Symbol Date and Text Display**.

Under **Dates**, choose to **Hide all symbol dates** on the schedule.

Under **Text**, choose to **Hide all symbol text** on the schedule.

This setting overrides toolbox settings and individual settings for each symbol on the schedule.

Revert to the toolbox and individual symbol settings by selecting **Use Toolbox and individual symbol date/text settings**.

Symbol date prefix and suffix

Once a symbol has been placed on the schedule, you can enter any text to appear before and/or after that symbol's date display.

1. Click the button in the toolbox.
2. On the schedule, double-click a symbol.
3. Next to **Date Prefix**, enter up to 10 characters (lower case) to appear before the symbol date.
4. Next to **Date Suffix**, enter up to 10 characters (lower case) to appear after the symbol date.
   - Enter a backslash (\) after the entry to hide the date display, e.g. TBD\
   - Add a blank space after the prefix text or before the suffix text to provide separation between the text and the date display.

Stage 1: 1/29

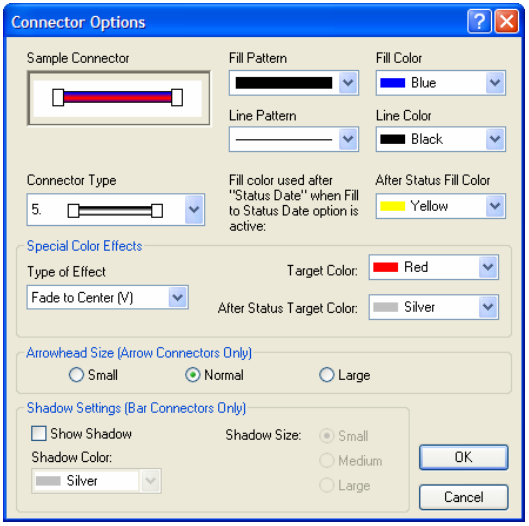
TBD

SoftDate 3/24

4/27 or TBD

Set Horizontal Connector Defaults

To change the attributes of a horizontal connector in the toolbox, double-click on the connector in the toolbox. Any changes to the connector in the toolbox will affect occurrences of that connector on the schedule.



To set a connector's defaults:

1. Double-click a connector in the toolbox.
2. Click a drop-down menu to view the options.

The **Sample Connector** changes to match your selections, as you make them.

Change connector shape, pattern, colors, fade effect, and shadow

- Choose from more than 35 **Connector Types**.
- Choose from more that 50 **Fill Patterns**.
    - Marbled connector fill patterns are full-colored bitmaps which will ignore any *Fill Color* settings. These connector fill patterns increase the size of printer files and metafiles, especially on high-resolution printers. Thus, printing time may be increased.
- Choose a **Fill Color** that fills the inside of the connector.
- Choose the **Line Pattern** and **Line Color** that encompasses the connector.
- Choose an **Arrowhead Size** if the connector is a line with an arrow ending.
- Choose a **Shadow Settings** color and size.
- The **After Status Fill Color** is the fill color of the connector after (to the right of) the status date. The status date is controlled by a status symbol or current date line.

✍ To activate the "fill to status" feature, choose **Format** | **Dates** | **Connectors Fill to Status**.

- Choose a **Type of Effect** to fade from the **Fill Color** to the **Target Color** (to the left of the status line) and from the **After Status Fill Color** to the **After Status Target Color** (to the right of the status line).

Override a connector's default fill color

The connector fill color can be overridden on a connector-by-connector basis once a connector is placed on the schedule.

1. Click the tool.
2. On the schedule, double-click the left-most symbol to which the connector is attached.
3. Under the **Size/Color/Summary** tab, find the **Override Connector Color** section.
4. For **1st Connector**, choose a color from the drop-down list .
5. For **2nd Connector**, choose a color from the drop-down list .

Below, the top connector is the 1st connector, since it was added first.

"Always on top" connectors

This feature controls which connector appears "on top," when two connectors overlap.

Before

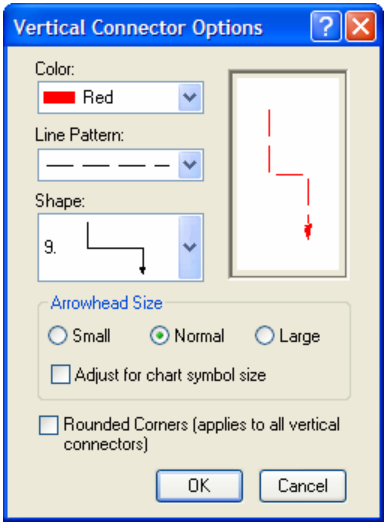
To change, for example, the longer, thinner connector to be "on top":

1. Click the tool.
2. On the schedule, double-click the left-most symbol to which the connector is attached.
3. Click the **Size/Color/Summary** tab.
4. **Horizontal connectors from this symbol are on top of other connectors**.

After

Set Vertical Connector Defaults

To change the attributes of a vertical connector in the toolbox, double-click on the connector in the toolbox. Any changes to the vertical connector in the toolbox will affect occurrences of that connector on the schedule.



To set a connector's defaults:

1. Double-click a vertical connector in the toolbox.
2. Click the drop-down menu to view the options.

The **Sample Connector** changes to match your selections, as you make them.

- Choose a vertical connector **Color**.
- Choose a dotted, dashed, thin, or thick **Line Pattern.**
- Choose from more than 15 vertical connector **Shapes**.
- Choose an **Arrowhead Size** if the connector has an arrow ending.
    - Optionally, check **Adjust (arrowhead size) for chart symbol size** to scale the arrowheads based on the chart's symbol size setting. Without this checked, arrowheads may look too large on charts where the symbol size is less than one.
- **Rounded Corners** is a global setting that affects all other vertical connectors in the toolbox.

Chapter 4: Working with an Outlined Schedule

Outlining is useful for organizing your schedule at different levels. Usually you want to outline your schedule to enough levels so that the actual task level has a clear, definable item of work that can be identified, budgeted, assigned, and tracked.

Enter task dates at the sub-task level and the summary bars will automatically appear.

Once your schedule is outlined, use the roll-up feature to present different levels of schedule complexity to your various audiences.

Further, costs, budgets and other numerical values associated with lower-level tasks can automatically roll-up (sum) to each upper outline level.

An example of an outlined schedule with column value roll-up is shown below:

WBS	Outline Level	Description	2004 Jan	Feb	Mar	Apr	May	Jun	Budget
1	1	Project ABC							$34,500
1.A	2	Research							$13,000
1.A.1	3	Phase A							$13,000
1.A.1.1	4	Activity A1							$5,000
1.A.1.2	4	Activity A2							$8,000
1.B	2	Development							$21,500
1.B.1	3	Phase B1							$10,000
1.B.2	3	Phase B2							$11,500

This example is outlined to four levels. The “Description” column uses the outline level indent feature. The “Outline Level” and “WBS” columns are SmartColumns which automatically fill according to the indented text in “Description” column. The “Budget” values are user-entered at the lowest outline level—then those values are automatically summed on each summary row.

Outlining Tools and Formatting

To create an outlined schedule, at least one of your columns should display indented text in order to see which tasks are outlined to which levels—as in the "Description" column on the previous page.

Outlining tools

A. The Tab key on your keyboard can be used to indent tasks for outlining purposes. This feature can be turned on and off as follows:

   1. Choose **Tools** | **Options** | **Edit**.
   2. **Use Tab key for Outlining**.

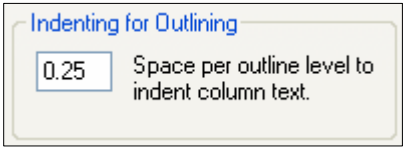
   Now, by selecting a task line and then pressing Tab, the outline level increases by 1 (e.g. from level 2 to 3). By pressing Shift+Tab, the outline level decreases by one (e.g. from level 3 to 2).

B. The (outdent) and (indent) shortcut icons are another quick way to indent tasks for outlining. If these are not in your toolbar, right-click the toolbar to customize it.

C. Yet another way to indent for outlining is using Alt+Shift+Left Arrow key for outdenting and Alt+Shift+Right Arrow key for indenting.

Set the indentation amount for column text

1. Double-click the column heading whose column text will indent based on outline level.
2. Click the **Column Formatting** tab.
3. Under **Indenting for Outlining**, enter an amount in inches, such as .25 or .30.



✍ This is the amount of space that each successive outline level will be indented for this column.

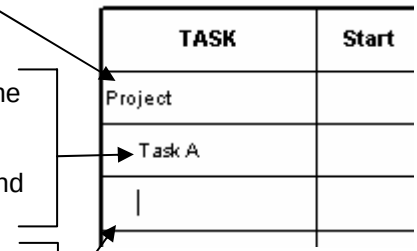
For example, outline level 2 will be indented .25 inches from the cell's left margin, level 3 will be indented .50 inches from the left, and so on.

Outline your Tasks

You can outline existing tasks or outline tasks as you enter the task names.

Outline tasks as you enter them

1. Click the T tool in the toolbox.
2. Click once in the first cell below the column heading, and type an Outline Level 1 task name.
3. Click the ↓ key on your keyboard to go to the next cell in the column.
4. Press the **Tab** key (or click the icon), and type the Outline Level 2 task name.
5. Click the ↓ key on your keyboard to go to the next cell in the column (cursor is displayed).
6. Use **Tab** or , and enter the next task name.



Outline existing tasks

If the task names are already entered, you can outline those existing tasks.

1. Click the tool in the toolbox.
2. Hold the **Ctrl** key on your keyboard.
3. In the task column, click once on all tasks that should be indented (below left).
4. Click the button. The selected tasks indent one outline level (below right).

Outline Level	TASK	February
1	Database Project	
1	Task 1	
1	Task 2	
1	Task 3	
1	Web Site Project	
1	Task 1	
1	Task 2	
1	Task 3	

Outline Level	TASK	February
1	Database Project	
2	Task 1	
2	Task 2	
2	Task 3	
1	Web Site Project	
2	Task 1	
2	Task 2	
2	Task 3	

Outline Level SmartColumn

This column is a great tool to keep track of each task line's outline level, yet it is not necessary in order to outline. As each task line is indented/outdented, the Outline Level SmartColumn's numbers changes automatically.

To add an Outline Level SmartColumn:

1. Choose **Insert** | **Column** | **Outline Level**.
2. To edit the column's properties (such as column title), double-click the new column's heading.

As you indent/outdent your schedule tasks, the outline level value changes automatically. Likewise, when you enter a value in the Outline Level SmartColumn, the tasks indent/outdent accordingly.

WBS SmartColumn

Standard WBS outlining

Another type of SmartColumn that can display the current outline level of a task is the WBS (Work Breakdown Structure) number. A WBS number combines the task number and outline level in one number. Task 1 would have WBS number "1" and Sub-task 1 of Task 1 would have WBS number "1.1" and so on.

Here is the Project ABC schedule again—with both Outline Level and WBS SmartColumns:

WBS	Outline Level	Description	2004 Jan	Feb	Mar	Apr	May	Jun	Budget
1	1	Project ABC							$34,500
1.A	2	Research							$13,000
1.A.1	3	Phase A							$13,000
1.A.1.1	4	Activity A1							$5,000
1.A.1.2	4	Activity A2							$8,000
1.B	2	Development							$21,500
1.B.1	3	Phase B1							$10,000
1.B.2	3	Phase B2							$11,500

In this example, the WBS scheme uses letters and numbers.

Activities with outline level number 1 correspond to the WBS numbers 1, 2, 3,…; or A, B, C,….

The tasks with Outline Level number 2 correspond to the WBS numbers 1.1, 1.2, 1.3; and 2.1, 2.2, 2.3; or 1.A, 1.B, 1.C and 2.A, 2.B, 2.C.

Alphanumeric WBS outlining

Again, the WBS hierarchy can contain letters, as well as numbers. For example, a task with a WBS of 1.1.1 can be formatted to read 1.a.1, or A.1.1, or a.a.A, among other possibilities.

In the dialog that appears when you define a WBS SmartColumn, check any level that should use letters instead of numbers.

In this example…

WBS level 1 will display a number.

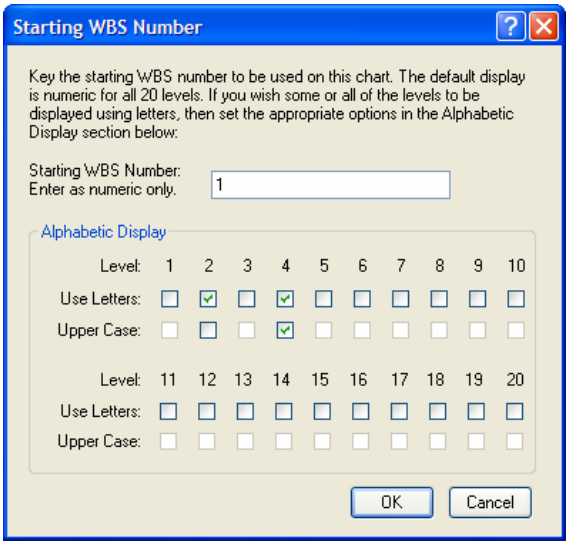
WBS level 2 will display a letter.

WBS level 3 will display a number.

WBS level 4 will display a capital letter.

WBS levels 5-20 will display numbers.

The schedule below uses these settings as applied to a schedule with four levels of outlining.


Starting WBS Number
Key the starting WBS number to be used on this chart. The default display is numeric for all 20 levels. If you wish some or all of the levels to be displayed using letters, then set the appropriate options in the Alphabetic Display section below:
Starting WBS Number:
Enter as numeric only.
1
Alphabetic Display
Level: 1 2 3 4 5 6 7 8 9 10
Use Letters:
Upper Case:
Level: 11 12 13 14 15 16 17 18 19 20
Use Letters:
Upper Case:
OK
Cancel

Swimming Pool Construction

PROJECTS	2002 Feb	Mar	Apr	May	OUTLINE LEVEL	WBS NUMBER
301 Sunspot					1	1
Excavate					2	1.a
Task 1					3	1.a.1
Task 2					3	1.a.2
Plumbing					2	1.b
Masonry					2	1.c
455 Tombstone					1	2
Excavate					2	2.a
Plumbing					2	2.b
Masonry					2	2.c
Scaffold					3	2.c.1
Brick & Mortar					3	2.c.2
Set					4	2.c.2.A
Form					4	2.c.2.B
Finish					4	2.c.2.C

Summary Line Display

Optionally, Summary Bars automatically appear on all upper task levels, as either a single bar summarizing the lower-level tasks' dates or as a roll-up of all lower level task bars and single symbols (milestones).

Summary lines also can summarize lower level column data such as hours worked, duration, budget, costs, and more.

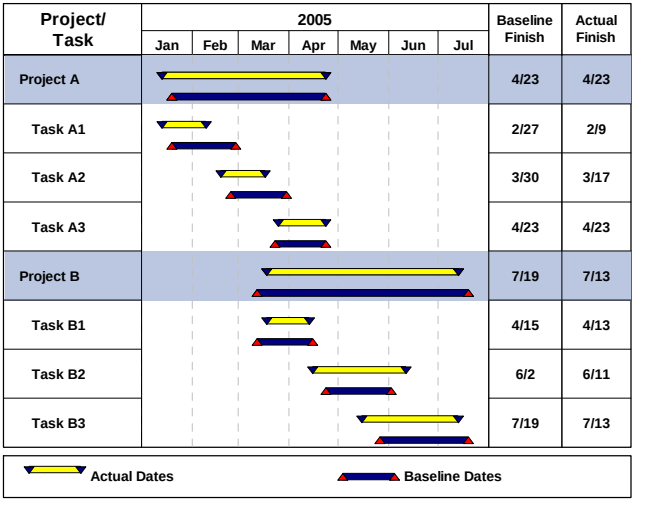
Symbols and connectors on summary lines move automatically when symbols on lower level task lines move. They are drawn automatically based on the dates in the lower level tasks. Therefore, summary line symbols cannot be selected or moved.

Summary bar display options and default formatting

1. Choose **Format** | **Summary Bar Settings**.
2. Choose **When to Draw** the summary bars:
   - *Never* show summary symbols and bars.
   - *Only When Rolled Up* to display summary bars when lower-level tasks are collapsed to the summary line.
   - *Always* display the summary bars.
3. Under **For Normal Summary Bar Symbols and Bars**, select a start symbol, end symbol, and connector for the default summary line display. The available choices match those in your toolbox.

Baseline can be displayed separately from normal symbols on the summary line.

1. Choose **Format** | **Baseline Setup**.
2. Follow the **Baseline Wizard** to create baseline symbology for the sub-task lines and summary lines.



To hide the baseline summary bars and symbols (while displaying normal summary bars), choose **View** | **Baseline** | **Hide Baseline Summary Bars**.

Override summary bar symbols, connectors and fill colors

Override the default summary bar formatting for both normal and baseline summary display by outline level or for individual summary rows.

Outline level summary bars override

Customize the summary bar settings for any of the 20 outline levels. These settings will override the schedule default settings.

Change the summary bar's start symbol, horizontal connector and end symbol for each outline level. Set for both normal symbology and baseline symbology.

1. Choose **Format** | **Set Outline Level Properties**.
2. Select the **Outline Level** for your summary bar settings.
3. Under the **Summary Bars** tab, choose a **Start Symbol**, **Connector** and **End Symbol** for normal summary bars and baseline summary bars.
4. If **Automatically Apply Outline level properties while editing schedule** is not checked, then the summary bar override will be ignored.

You may continue formatting with the task line background shading, column text, and gridline settings for this outline level. See Chapter 12 for more information about formatting task rows by outline level.

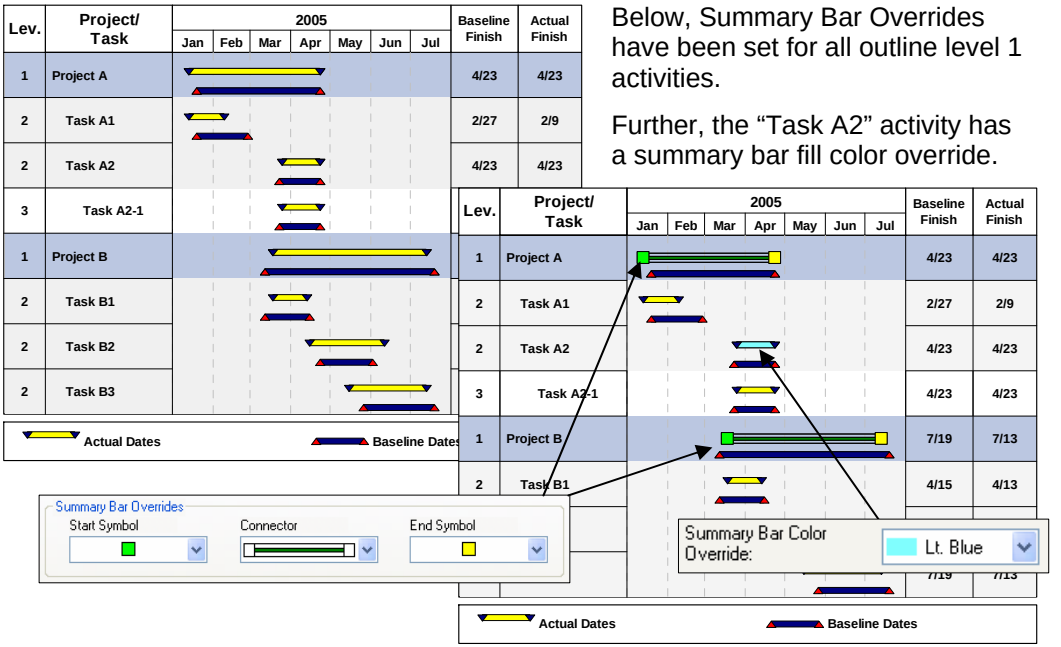
Override a selected summary task's connector color

This setting overrides the summary connector's fill color for the selected summary task line. Set the normal and baseline connector colors separately.

1. Double-click any column cell on the summary line.
2. Choose the **Task/Row Settings and Info** tab.
3. Next to **Summary Bar Color Override**, select a color for the connector bar.
4. Next to **Baseline Summary Bar Color Override**, select a color for the connector bar.

Example: Override summary bar symbols, connectors and fill colors

This schedule (below, left) has default symbols and connectors for baseline and normal summary bars, as shown in the legend.



Below, Summary Bar Overrides have been set for all outline level 1 activities.

Further, the "Task A2" activity has a summary bar fill color override.

Display column values on summary lines

Lower-level values in a Values SmartColumn, ValueSet SmartColumn and Calculation/Indicator SmartColumn can be automatically summed and displayed on summary task levels. Summary bars must be drawn for the values to appear.

1. Choose **Format** | **Summary Bar Settings**.
2. **Compute Rolled-Up Values for Value/Calc SmartColumns**.
3. Choose either **Only When Rolled Up** or **Always** for when to draw the summary lines.
   - One of these two must be selected for values to roll-up.

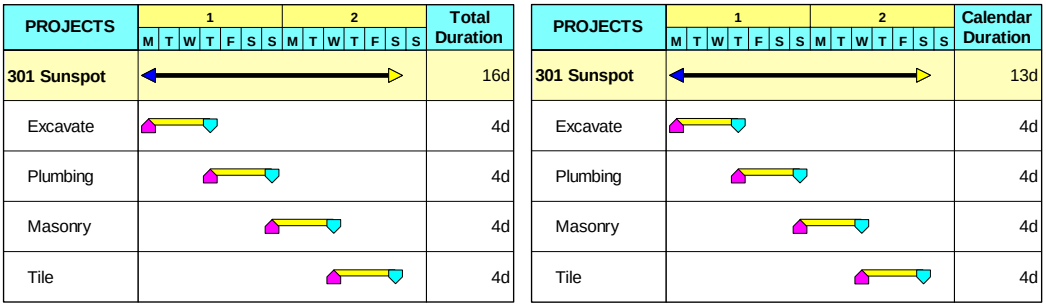
COSTS	OUTLINE LEVEL
$1,950	1
$450	2
$700	2
$425	2
$375	2

As shown to the right, values from Outline Level 2 are summed and displayed on Outline Level 1.

✍ Values SmartColumns have the option of displaying an average of lower level values instead of a sum, or any overriding, user-entered value.

Display column duration values on summary lines

Duration can be displayed in calendar time or as a total of lower-level duration values. The default duration is shown below, left, as a total of the lower-level durations. Calendar duration is shown below, right, as the duration of the summary bar.



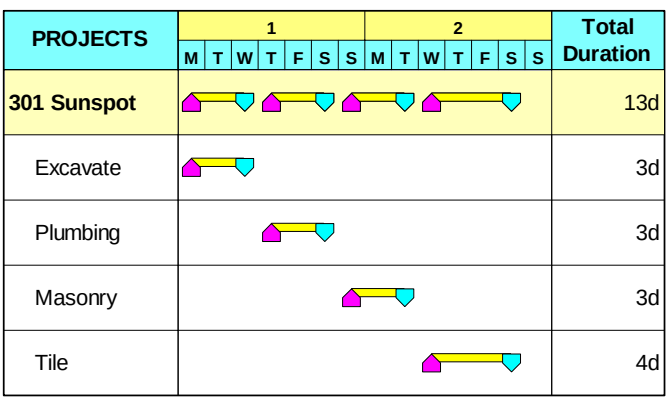
1. Choose **Format** | **Summary Bar Settings**.
2. Choose either **Only When Rolled Up** or **Always** for when to draw the summary lines.
    - One of these two must be selected for duration values to roll-up.
3. For a summary duration value in calendar time, **Show Summary Duration in Calendar Time**.

Display lower-level symbols / connectors on summary lines

By default, the summary line displays a single start symbol, end symbol and connector. Optionally, you can display “duplicates” of all sub-task’s symbols and connectors, on the summary line.

1. Choose **Format** | **Summary Bar Settings**.
2. **Split Summary Bars using Lower Level Symbols/Bars**.

In the *Summary Bar Settings* dialog box, you can “turn-off” the symbol date display for summary line symbols, by checking **Hide Dates on Roll-Up Symbols**.



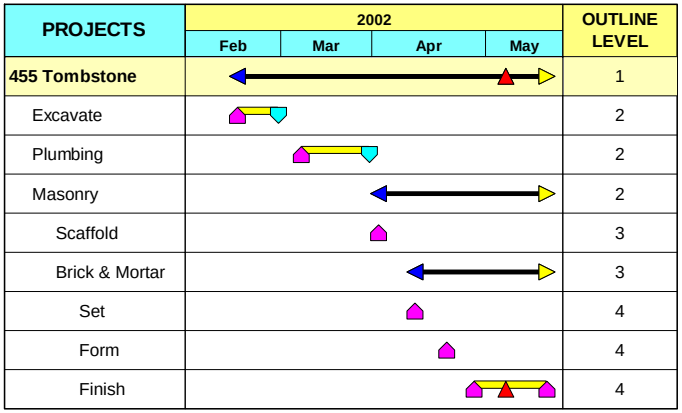
Display selected symbols on specified summary lines

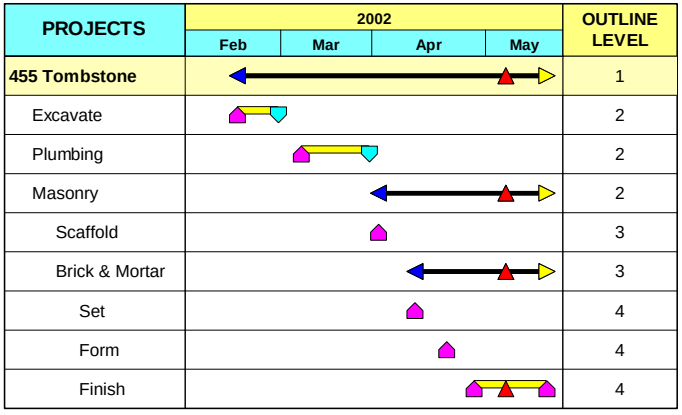
Each symbol on the schedule can be individually rolled-up to any single upper summary line or all summary lines. For example, a symbol on an outline level 4 task line can be rolled-up to just the 1st outline level – thereby skipping the 2nd and 3rd outline levels.

1. Click the tool in the toolbox.
2. Double-click the symbol to be rolled-up.
3. Click the **Size/Color/Summary** tab.
4. Choose to **Include this symbol on all Summary Bar levels** (below, left).
5. Or, choose **Include this symbol on this Summary Bar level** (below, right).
6. For step 5, select an upper outline level for the symbol to appear on

.

In this example, the triangle symbol on the *Finish* task line (outline level 4) is rolled up to outline level 1, only.





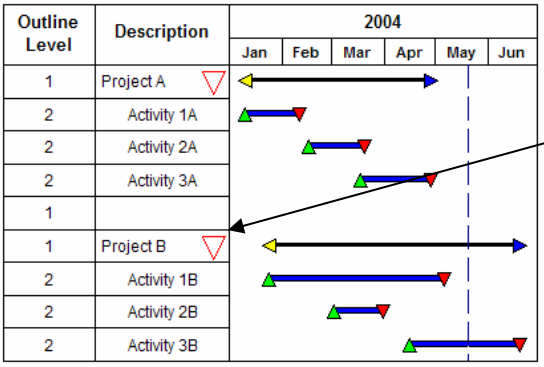
In this example, the triangle symbol on the *Finish* task line (outline level 4) is rolled up to all of its upper outline levels.

Summary Line Roll-up

Another useful feature of outlining is the ability to "roll-up" lower level tasks to the summary level—in effect, hiding lower-level task lines. Use Collapse/Expand Indicators, right-click menus, and filters to collapse for a summary view or expand to a detailed view.

Roll-up and down using Collapse/Expand Indicators

1. Choose **View** | **Collapse/Expand Indicators**. Icons ▽ ▼ will appear on the left side of the schedule.
    - The expand indicator (▼) appears when there are hidden lower level tasks which can be expanded (shown).
    - The collapse indicator (▽) appears when lower level tasks are visible and can be collapsed (hidden).
    - Task lines without lower level tasks will not display either indicator.
2. To collapse (roll-up/hide) lower level tasks, click ▽.
3. To expand (roll-down) to show lower level tasks, click ▼ .

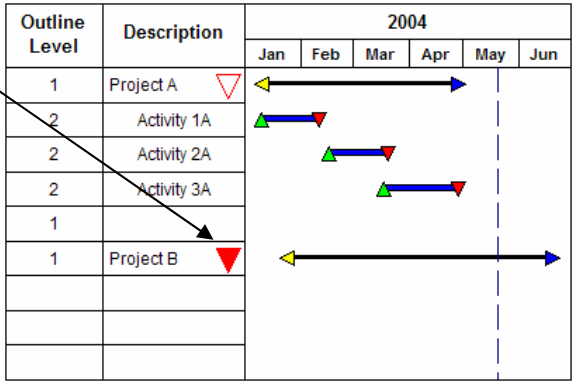


Click on the collapse indicator ▽…

…to roll-up (hide) the lower-level tasks, as seen in the schedule below.

Click on the expand indicator ▼…

…to roll-down (show) the lower-level tasks, as seen in the schedule above.



✍ While task lines are rolled-up, you are able to copy and paste all the rolled-up tasks as if they were just one line. This makes it easy to rearrange an outlined schedule.

Roll-up and down using right-click menus

1. Right-click the task line whose sub-tasks you wish to roll-up (hide).
2. Choose to:
    - **Collapse Selected Task Line** – only rolls-up (hides) that task's subtasks.
    - **Collapse All Tasks to Selected Level** – rolls-up (hides) all tasks with the same outline level.
3. Right-click the task line whose sub-tasks you wish to roll-down (show).
4. Choose to:
    - **Expand Selected Task Line** – only rolls-down (shows) that task's subtasks.
    - **Show All Tasks Lines** – rolls-down (shows) all tasks.

Roll-up and down by filtering task lines

With the filter option, you can quickly set your entire schedule to hide all tasks beneath a certain outline level.

1. Choose **Tools** | **Filter Task Lines**.
2. Select **Outline Level** as the type of filter.
3. Enter the outline level to which all sub-tasks should roll-up.

This schedule (below, left) has four outline levels. By entering *2* as the filter roll-up level, the summary schedule (below, right) is produced.

Swimming Pool Construction

PROJECTS	2002				OUTLINE LEVEL
	February	March	April	May	
301 Sunspot					1
Excavate					2
Task 1					3
Task 2					3
Plumbing					2
Masonry					2
455 Tombstone					1
Excavate					2
Plumbing					2
Masonry					2
Scaffold					3
Brick & Mortar					3
Set					4
Form					4
Finish					4

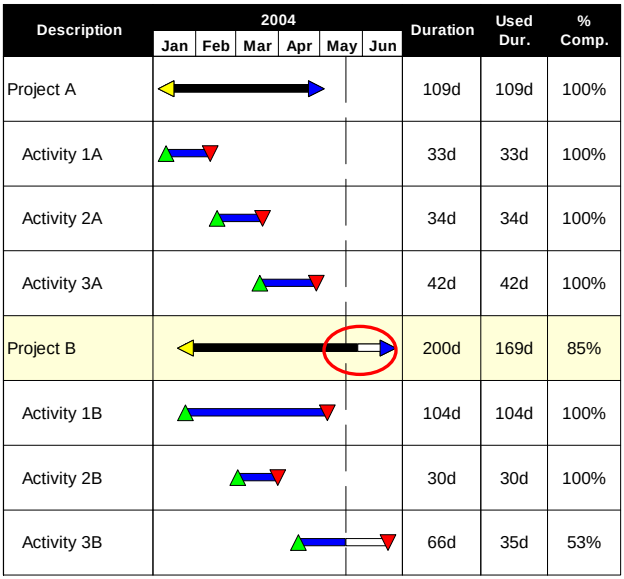
Swimming Pool Construction

PROJECTS	2002				OUTLINE LEVEL
	February	March	April	May	
301 Sunspot					1
Excavate					2
Plumbing					2
Masonry					2
455 Tombstone					1
Excavate					2
Plumbing					2
Masonry					2

Summary bar status fill control

When "connector fill to status date" is active (under *Format* | *Dates*), the summary bar is filled to match the percent complete of the sub-tasks.

As shown here, Project B's fill-to-status goes beyond the current date line because the connector's fill is based on the percent compete, not the current date line.



The 85% complete value is calculated as the total completed duration of the activities divided by the total overall duration of the activities for Project B.

Note that even if all sub-tasks are tracking exactly to the current date, the summary bar may be filled to a point either before the current date or after the current date since it is merely a gauge of the progress of all the sub-tasks, and not tied to the current date.

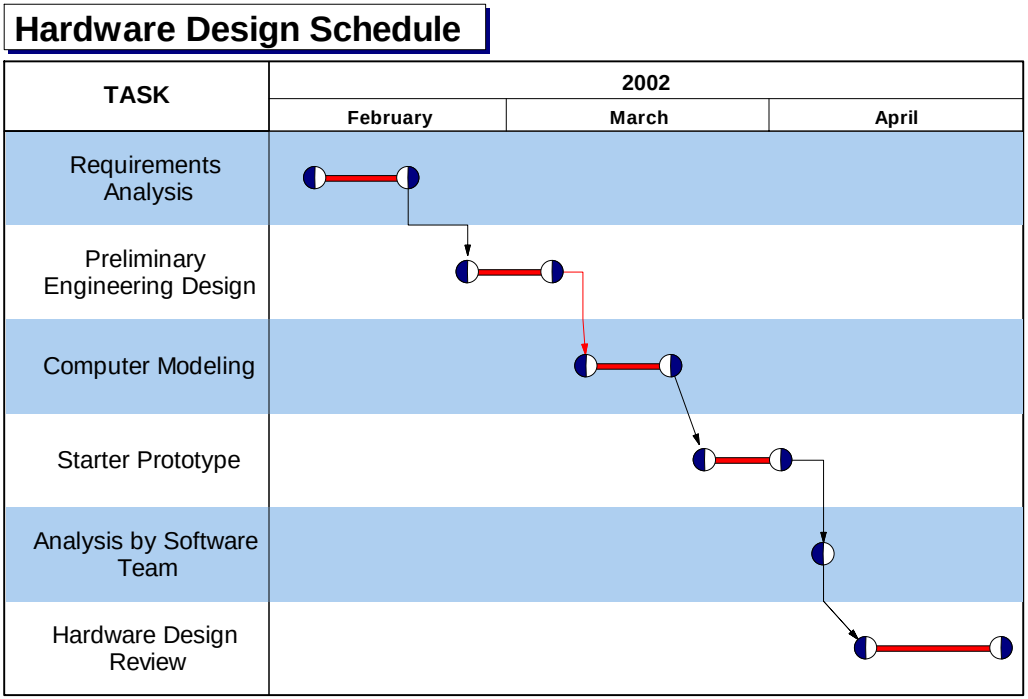
To completely fill summary bar connectors, choose **Format** | **Summary Bar Settings** and check **Summary Bars Ignore Fill to Status Setting**.

For more details, see the *Milestones Professional Help Topics* under the *Help* menu Index keywords “fill a summary line connector.”

Chapter 5: Dependencies and Vertical Connectors

Milestones Professional's dependency (predecessor/successor; parent/child) capabilities enable you to link task dates so that when one date changes, the dates that are dependent upon that date also change.

Within any one schedule, symbols on different task rows are linked using vertical connectors, as shown in the example below. Any of 15+ vertical connector shapes can be used. Any symbol can have up to 5 vertical connectors (task links) extending from it.



Chapter 9 addresses symbol linking and symbol date dependencies between files.

Dependency Mode and Display

Dependency Mode may be on or off. If Dependency Mode is on, then symbols that are dependent upon other symbols (successors) will move when the parent (predecessor) symbol moves. When Dependency Mode is off, then dependent symbols do not move.

The on/off status of Dependency Mode is shown in the Status Bar at the bottom of the Milestones Professional screen, as circled below:

Turn Dependency Mode on and off

Dependency Mode is either on or off for the whole schedule. It is a global setting.

1. Choose **Edit** | **Dependency Mode**.
    - A check mark by Dependency Mode indicates that it is on.

- or -

1. Click the tool in the toolbox.
2. Right-click any symbol.
3. Choose **Turn On Dependency Mode** or **Turn Off Dependency Mode**.
    - Even though you only selected one symbol and turned the dependency mode on or off, this setting applies to the whole schedule.

Show or hide the vertical connectors

The task links (vertical connectors) which establish dependencies may by visible or hidden.

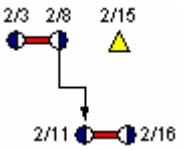
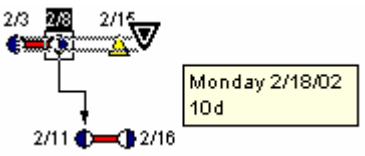
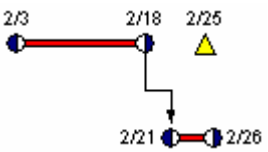
1. Choose **View** | **Task Links**.
    - A check mark next to the *Task Links* menu means that vertical connectors are currently being displayed.
    - If there is no check mark, then click the menu once to make the check mark appear.
    - Even when the vertical connectors are hidden, the rules for the movement of parent (predecessor) and dependent (successor) symbols still apply.

Symbol Dependencies and Movement

When Dependency Mode is on, a symbol is dependent (successor) if it comes after (to the right of) the parent symbol (predecessor) on the same line, or if a vertical connection runs from the parent symbol to the dependent symbol on another task line.

Vertical connections can go both up and down, so dependent symbols can actually be on task lines above the parent symbol.

In the example on the first page of this chapter (shown below, in excerpt), a vertical connector with a “from-to” arrowhead is used to easily see the direction of the dependencies.

	If the February 8th symbol is moved to the right, the triangle symbol will move an equal amount. The 2/3 symbol will not move because it is to the left of the 2/8 symbol. Thus, the 2/8 symbol is the parent symbol, and the 2/15 symbol is dependent on its movement. The vertically connected symbols are also dependent symbols.
	Here, the 2/8 symbol is moved 10 days to the right, as shown in the tooltip box that appears as the symbol is moved. All symbols connected to the parent symbol and to the right of the parent symbol on the same task line are dependent and should move an equal amount.
	All dependent symbols have shifted 10 working days, matching the movement of the parent symbol. The 2/3 symbol remained in place because it is to the left of the parent symbol.

If Dependency Mode is on, then dependent symbols will always shift if the parent symbol is moved with the mouse.

If you double-click on a symbol and change the date, you will be prompted to allow/not allow dependent symbols to shift.

If you change a start or end date in a SmartColumn, dependent symbols will NOT shift.

If a symbol move would cause a locked baseline symbol to move or a symbol with a “Lock to Date” constraint, then the symbol move is not allowed and a warning message is displayed.

Move dependent symbols based on duration

By default, when moving a symbol (predecessor), that symbol's dependent symbols (successors) may be moved to a date outside the workday time period or to a non-working day.

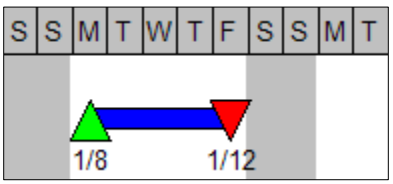
By checking **Always move dependent symbols based upon duration** as found under **Tools** | **Options** | **Edit**, the dependent tasks will move the amount of working time the parent symbol was moved. This prevents tasks from being pushed into non-working times and ensures duration values remain constant for the dependent tasks.

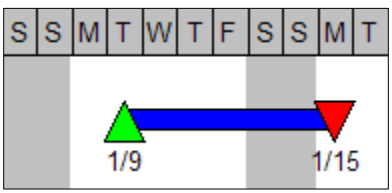
Note that if a parent symbol is shifted within a block of non-working time (e.g. from a non-working Saturday to a non-working Sunday), then the dependent symbols will not shift since the parent's date change had a net zero effect on duration.

In summary, to force dependent symbols to move to the next workday time period and thus maintain the integrity of the duration values, check *Always move dependent symbols based upon duration*.

Example:

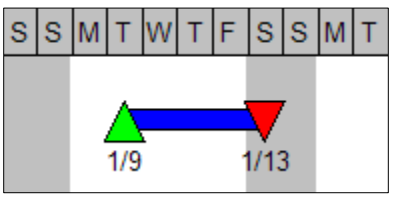
In this example, the task begins on Monday and ends on Friday. The weekends are shaded and are non-working days.





With ☑ *Always move dependent symbols based upon duration*, moving the start date forward by one day would result in the end date moving ahead one day, to the next working day, as shown to the left. The duration would remain as five days.

With ☐ *Always move dependent symbols based upon duration*, moving the start date forward by one day would result in the end date moving ahead one day, to the next day regardless of working/non-working days, as shown to the right. The duration would change to four days if weekends are non-working days.

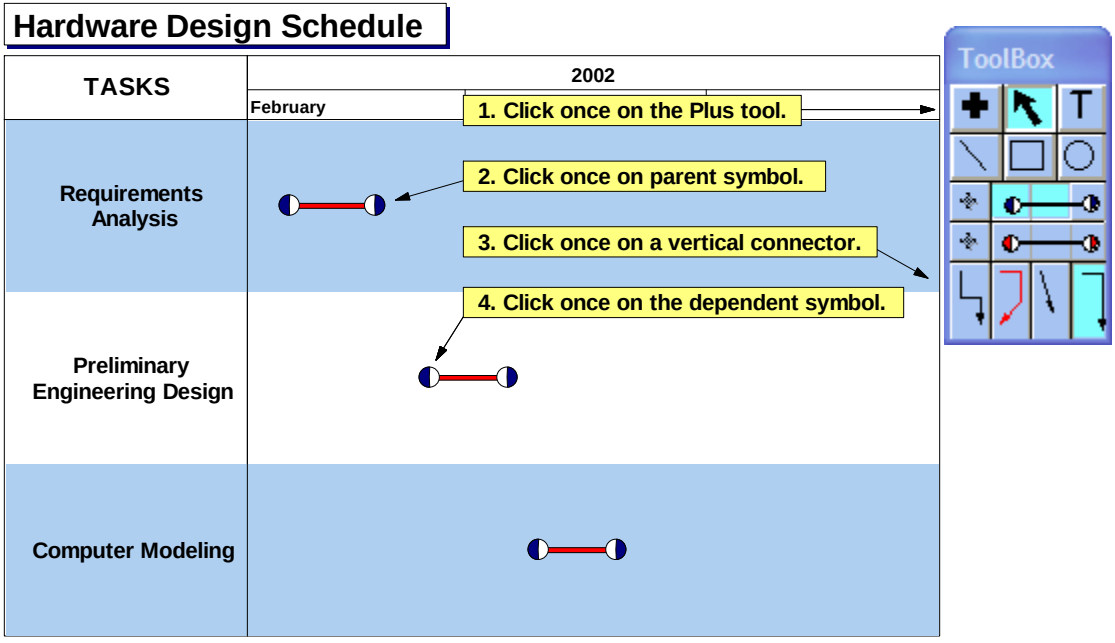


Add and Edit a Vertical Link

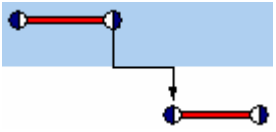
There are two methods for adding vertical connections between symbols: (1) Add a vertical link between two symbols (which should be on different task lines) using the mouse; and (2) add vertical connections between symbols on selected task lines using the *Insert* menu.

Add a vertical connector with the mouse

Follow the directions in the schedule below using your mouse:



If this exact order is used, then the chosen vertical connector will appear between the two symbols, as shown to the right:



If you continue to add connectors after these four steps, then you can skip step 1 and begin the next connection procedure with step 2. If other actions are performed (e.g. moving a symbol), then you should begin with step 1 when adding another vertical connector.

If this process does not work, you may need to load the correct or latest mouse driver.

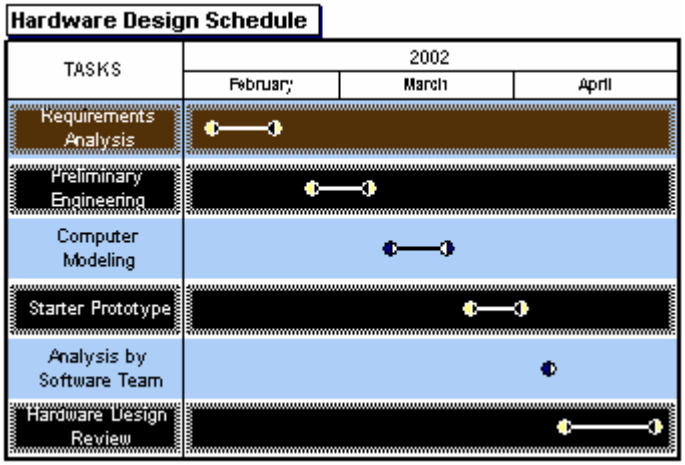
Add vertical connectors between symbols on multiple task lines

This method is best when each of your task lines contains one start symbol and/or one end symbol. You can connect either baseline symbols or normal symbols.

1. In the toolbox, click once on and once on the vertical connector you wish to add.
2. Hold the **Ctrl** key on the keyboard, and then click on each of the task lines whose symbols will be vertically connected (click in the column area of the task line).

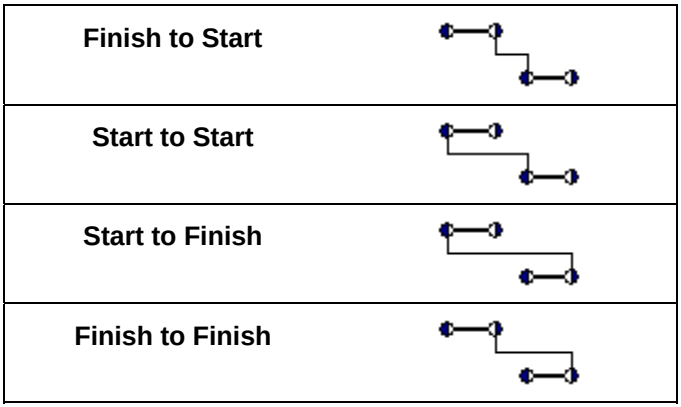
The chosen task lines (here, lines 1, 2, 4, and 6) will highlight in black, as shown to the right:

Hold the **Shift** key if you need to select a range of task lines.

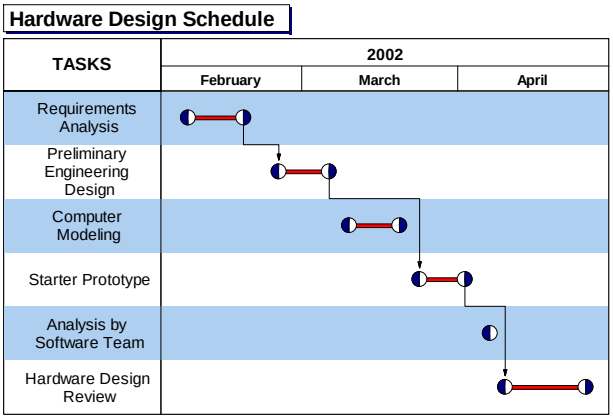


3. Choose **Insert** | **Vertical Connection(s)**.
    - Choose to **Connect Normal symbols** or **Connect Baseline symbols**.
    - Choose to make **Upward** or **Downward** connections between symbols.

- Choose the type of connection:



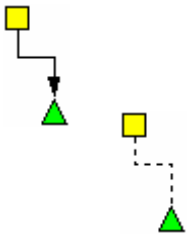
This is the result of a *Finish to Start* choice:



Edit an existing vertical connection

Chapter 3 discusses how to change the default settings for vertical connectors. Here is how to change a single vertical connector that is already on the schedule, from one type to another.

1. In the toolbox, click the tool.
2. On the schedule, click once on the symbol from which the connector extends (here, the box symbol).
3. In the toolbox, click once on the new vertical connector. The new vertical connector appears (here, the dotted line connector).



Remove Vertical Connectors

Vertical connectors can be removed from their originating symbols. When multiple vertical connections are attached to a symbol, selected vertical connectors can be deleted in the *Symbol Properties* dialog box.

Remove a single vertical connector

1. In the toolbox, click the tool.
2. On the schedule, right-click the parent symbol from which the connector extends.
3. Choose **Clear Vertical Connections**.

Remove vertical connectors from all symbols on a single task line

1. Right-click the task line (in the column area) that contains parent symbols whose vertical connections you wish to remove.
2. Choose **Clear Vertical Connections**.

Remove vertical connectors from all symbols, selected task lines

1. In the toolbox, click the tool.
2. Hold the **Ctrl** key and click once on each task line (in the column area) that contains parent symbols whose vertical connections you wish to remove.
3. Choose **Edit** | **Clear Lines** | **Clear Vert. Connections**.

Remove selected vertical connectors from a single symbol

1. In the toolbox, click the tool.
2. Double-click the parent symbol from which the connectors extend.
3. Choose the **Vertical Links** tab.
    - The vertical connectors are numbered under **Link**.
    - **Linked to Task line** indicates the task line number at which the vertical connector ends.
    - **Linked to Symbol** indicates the symbol at which the vertical connector ends. The number is the symbol's position counting from left to right with a base of 1.
4. Click the **Clear Link** button for the appropriate vertical connection.

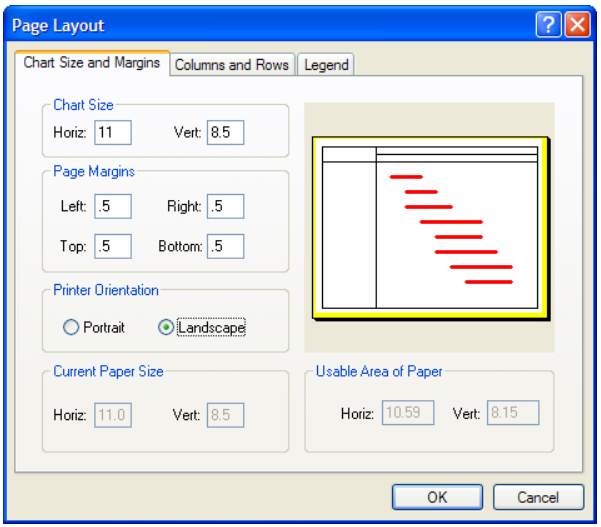
Chapter 6: Formatting and Layout

Milestones Professional offers the most complete and flexible layout of any project management package available. You have complete control over page size, lines per page, individual row height, and all other layout aspects of your schedule.

Page Layout

The *Page Layout* dialog box, shown below, is where you specify your overall chart size, page margins, column widths, task rows per page, and legend settings.

Change the chart size and margins



1. Choose **File** | **Page Layout**.

   -or- click the icon.
2. Choose the **Chart Size and Margins** tab.
3. Under **Chart Size**, enter a horizontal and vertical value in inches.
4. Under **Page Margins**, enter a value in inches for the Left, Right, Top and Bottom margin areas.
5. Under **Printer Orientation**, choose **Landscape** or **Portrait**.

Scaling the chart size to the current paper size

Create stamp-size to wall-size schedules. The maximum horizontal and vertical chart size is approximately 300 inches, or 25 feet. When the schedule prints, Milestones Professional will either scale each page of your schedule to fit within the **Current Paper Size**, or it will allow each page to span as many sheets of paper as needed, depending upon the printing options you select. To avoid the need for scaling, it is best to make sure that your **Chart Size** exactly matches the **Current Paper Size**.

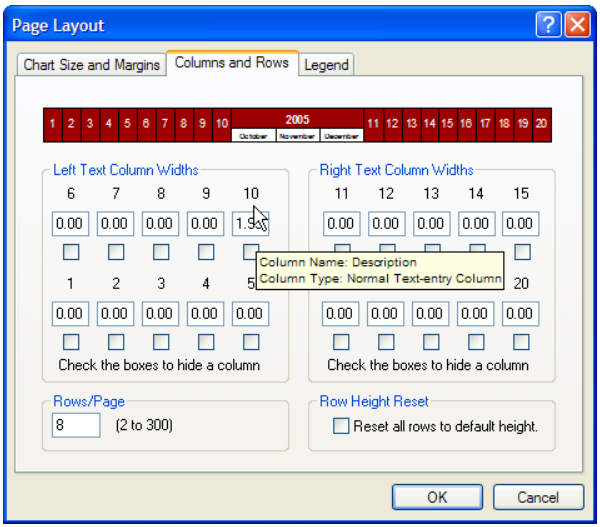
The measurements in the *Page Layout* dialog box are shown in U.S. inches. If your regional settings are set to use metric, then the measurements will be shown in centimeters.

The **yellow border** surrounding the sample chart in the preview screen shows the unusable area of the paper where the printer cannot print, as reported by your current

printer. You should keep the margins large enough so that no part of the sample goes into the yellow area.

Change the number of columns and rows

Milestones Professional allows for up to 20 columns—10 on each side of the schedule. Columns may contain text, dates, values, and symbols. Display 2 to 300 rows per page.



1. Choose **File** | **Page Layout**.

   -or- click the icon.
2. Choose the **Columns and Rows** tab.
3. Under **Left Text Column Widths**, enter a value in inches in order to create a column on the left side of the schedule.
4. Under **Right Text Column Widths**, enter a value in inches in order to create a column on the right side of the schedule.
5. A under a column number means that column will be hidden.
6. Under **Rows/Page**, enter the number of rows (task lines) that should appear on each page.

✍ The number and size of columns directly affects the amount of space available in the schedule area under the date headings. By increasing the horizontal chart size, you gain more horizontal space for columns and for the schedule area.

Rows per page and row height

If you override the height of one or more individual rows, then the actual number of rows on that page may be more or less than the rows per page value under *Page Layout*. That is, if a row height is decreased, then the rows per page may increase; if the height is increased, the rows per page may decrease.

The default row height is based upon the available space for rows divided by the number of rows per page. If you check **Reset all rows to default height**, then any row heights that you modified will be reset to the default value. The number of rows per page will also be restored.

Column numbering

Columns are numbered from 1 to 10 on the left side of the schedule, and from 11 to 20 on the right side of the schedule, as shown in the column numbering graphic under the *Columns and Rows* tab.

Column 10 is closest to the schedule area on the left side of the schedule; column 11 is closest to the schedule area on the right side of the schedule.

For example, if only one column is on the left side of the schedule, it would be column number 10.

The column heading text and type of column appear as a tooltip when the cursor hovers over each column.

Hide and unhide columns

If you check the box to hide a column, then the width will be remembered and restored if you later unhide the column. Columns of zero width are automatically not displayed; however, zero width columns must always be on the outer edges. For example, if column 10 is marked as 0.0 width and column 9 is marked as 1.0 width, after you press OK, the 1.0 will be moved to column 10.

It is best to use the hide check boxes if you need to hide a column that has data in it, instead of entering a 0.0 width value to essentially “hide” a column. Unhidden columns marked as 0.0 width will eventually have their data blanked out.

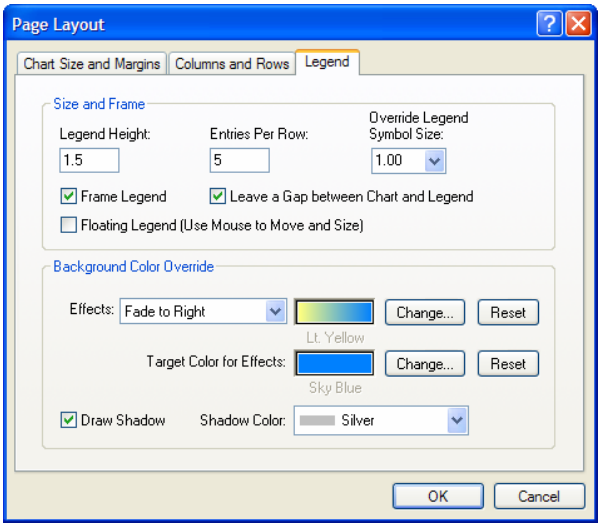
Create a legend

The legend is the area reserved for documenting the usages of the various symbols, horizontal connectors and vertical connectors on your schedule. The only meaning of a symbol or connector is that which you give it.

1. Choose **Format** | **Legend**, or **File** | **Page Layout**.

-or- click the icon.

2. Choose the **Legend** tab.
3. Under **Legend Height**, enter a value in inches.
4. Under **Entries Per Row**, enter the number of legend entries to display on each row in the legend.
5. The legend symbols and connectors use the default symbol size setting. Enter a value under **Override Legend Symbol Size** to override the default setting for legend entries.
6. **Frame Legend** to draw a border around the legend area.



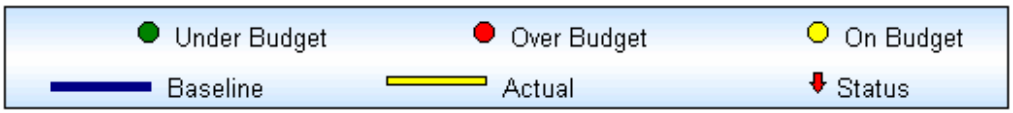
In the example above, the *Entries Per Row* is 5. If 6 legend entries are made, the 6th entry would go on a new, second row in the legend. Therefore, the number of legend rows is controlled by the number of legend entries.

7. **Floating Legend** to be able to position the legend anywhere.

Legend background color and shadow

Click **Change** to choose a background color for the legend. To fade that color to a target color, choose **Change** next to **Target Color for Effects**. Next, choose a fading **Effects** for the two colors to fade together.

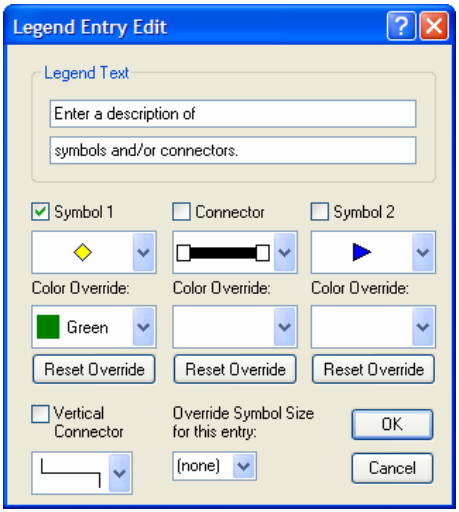
To display a shadow around the legend, check **Draw Shadow** and select a **Shadow Color**.



Legend entries

The Legend height should be large enough to hold the number of entries that you plan to have. Legend entries are placed left to right, in the order in which they are created.

Add a legend entry



1. Choose **Insert** | **Legend Entry**.
2. Enter **Legend Text**.
3. Select any or all of the **Symbol 1**, **Connector**, and **Symbol 2** options; or select a **Vertical Connector** to appear with the text.
4. Click a drop-down arrow to view and make selections.
5. Choose optional **Color Overrides** for symbols and horizontal connectors.
6. **Override Symbol Size for this entry** will change the legend display size of *Symbol 1* and *Symbol 2* for this legend entry only. The connector size is not affected.

All symbols and connectors in the drop-down boxes under *Symbol 1*, *Connector*, *Symbol 2*, and *Vertical Connector* are those available in the toolbox. If the symbol or connector is not available in the legend entry dialog box, then add it to the toolbox.

Move a legend entry

Once two or more legend entries are present, simply click-and-drag to move them.

1. In the toolbox, click the tool.
2. Position the cursor over the legend entry to be moved.
3. Click and hold the left-mouse button, and then drag to a new location in the legend. As you move the mouse, the cursor will look like this:
4. Release the mouse button, and the legend entry will appear, shifting all other entries to the right and down, if there is more than one row of entries.

Move and resize a floating legend

Resize a floating legend by moving the cursor to the right or left edge or a corner, then click-and-drag with the ↔ or ↘ cursor.

Move a floating legend by moving the cursor to the bottom or top edge of the legend, then click-and-drag with the ✥ cursor.

Delete a legend entry

To delete a Legend entry, either right-click on the entry and select the **Delete Legend Entry** option, or click once on it and select the **Delete Legend Entry** option from the **Edit** menu (or press the Delete key on your keyboard).

Columns

You can use the **Columns and Rows** tab in the **Page Layout** dialog box to insert columns by simply changing a width from 0.0 to some other value, but the easiest way to insert columns is to simply use the **Insert** menu.

Insert a column

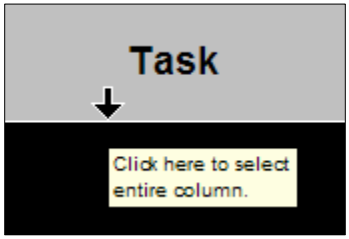
To insert a column next to the schedule area (then you can move it):

1. Choose **Insert** | **Column** and select from the list of column types.

The column will appear closest to the schedule area, on the left side. When the left side of the schedule contains 10 columns (maximum number allowed), the new column will appear on the right side.

To insert a column between two existing columns:

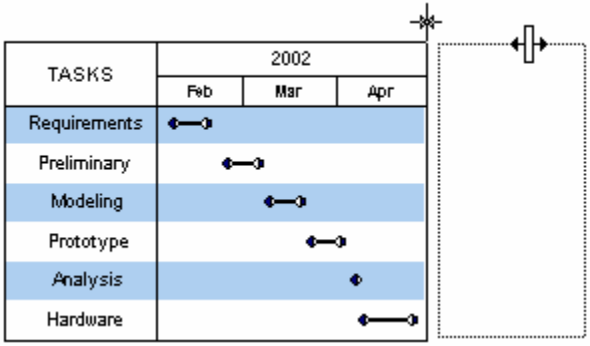
1. Click the tool.
2. Select an existing column by clicking the mouse at the bottom of the column heading cell, as shown to the right.
3. Choose **Insert** | **Column** and select from the list of column types.



Move a column

1. Click the tool.
2. Move the cursor to the top edge of the column to be moved, until the cursor becomes a .
3. Click and hold the mouse button, and then drag to the new location.

   As you drag, a faint outline of the column moves with the cursor.

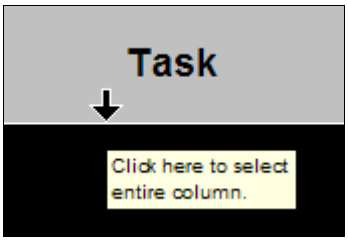


4. An insert point will appear, showing you where the column will appear when you release the mouse button.

When you move a column to the far left or far right edge, you may need to grab the column near the column's left or right edge to allow room for the column to clear the edge of the chart.

Remember that the total width of all the columns together takes away from the area reserved for the schedule. If your column widths must be so wide that there is no room left over for the schedule, then you need to consider changing your chart width.

Delete a column

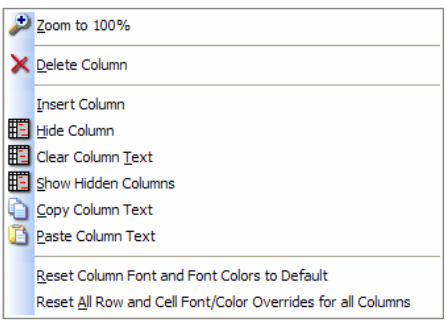


1. Click the tool.
2. Select the column by left-clicking the mouse at the bottom of the column heading cell, as shown to the right.
3. Choose **Edit** | **Delete Selected Column**, or press the Delete key on your keyboard.

-or-

1. Click the tool.
2. Move the mouse to the bottom of the column heading cell, as shown to the right.
3. Right-click and choose **Delete Column**.

Right-click to edit column



When the cursor turns to an arrow for selection of a column and you right-click, the menu display offers many editing choices.

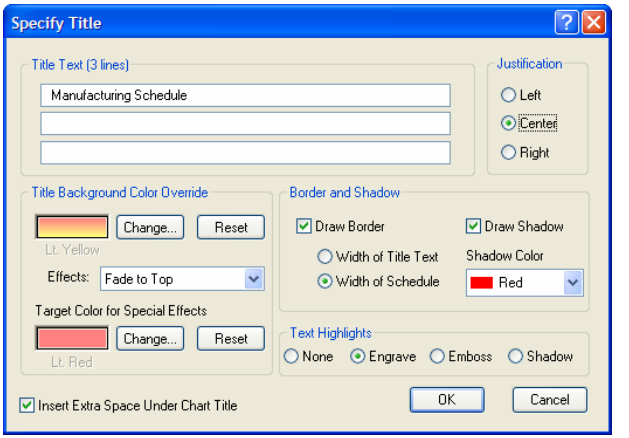
Choose **Clear Column Text** to delete text in the column cells without deleting the column.

Color themes do not override a column's cell-by-cell settings. To reset all individual overrides made to column cell text color and size back to the schedule defaults, choose **Reset all Row and Cell Font/Color Overrides for all Columns**.

Choose **Reset Column Font and Font Color to Default** to revert to default column text font, color and size settings in the selected column.

Chart Title

Enter up to three lines of text for the chart title. The title can have a background color, frame, shadow, text highlights, and special effects shading.



1. To add a chart title, choose **Insert** | **Chart Title**.
2. Under **Title Text**, click once and enter text.
3. Under **Title Background Color Override**, click **Change** and choose a color.
4. Choose a fade **Effects** for fading from the background color to the target color.
5. Under **Target Color for Special Effects**, click **Change** and choose a color.
6. Choose a text **Justification**.
7. Under **Border and Shadow**, choose to draw a **Border** around the title.
8. Choose to add a **Shadow** and choose the **Shadow Color**.
9. The background color, border, and shadow can extend the **Width of Title Text** or **Width of Schedule**.
10. Choose to **Engrave**, **Emboss**, or **Shadow** the title text.
11. An **Extra Space** can be inserted between the title and the schedule.

The options above would result in the following chart title:

Manufacturing Schedule

Date Headings

You can have up to 4 levels of Date Headings on your schedule, shown above the schedule area, below the schedule area, or both. The Date Headings are used as a reference point for the symbols and bars on your schedule.

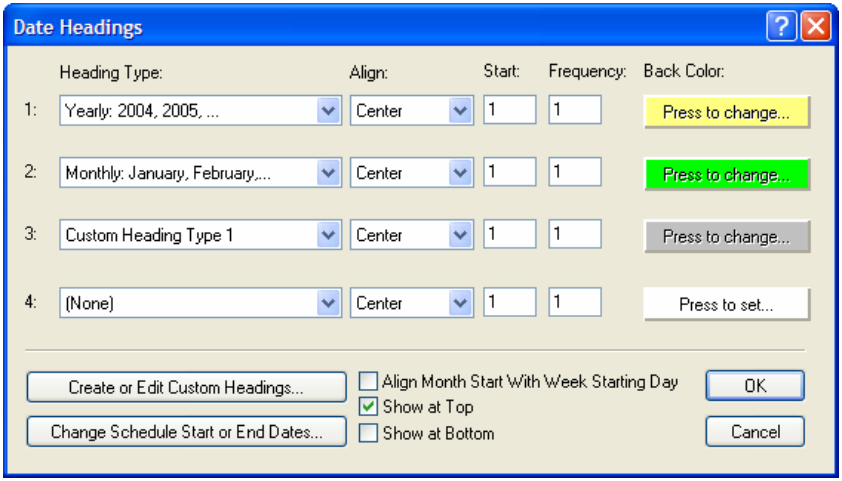
You should select headings that are appropriate for the time span of your schedule and the amount of horizontal space over your schedule area. For example, daily headings would not be appropriate for an 8.5" by 11" schedule, since it would be difficult to squeeze 365 daily divisions into the amount of space available.

Format the Date Headings

To bring up the *Date Headings* dialog box for formatting the date headings:

1. On the toolbar, click the icon; or double-click the date heading; or right-click the date heading and choose **Properties**.

   The following dialog box appears:



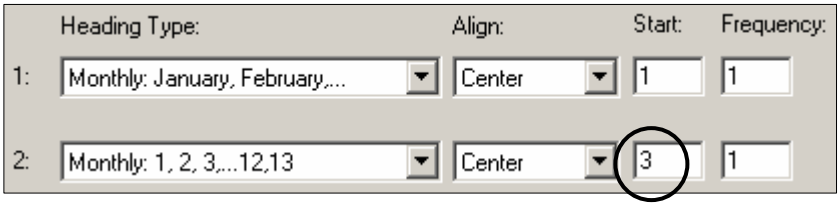
2. For any of the four available headings, click the drop-down arrow and choose a **Heading Type**. Choose from 35 standard date heading styles ranging from years to minutes and 4 user-created custom headings.
3. Under **Back Color**, click the **Press to change** button and choose a background color and optional **Effects Target Color** and **Special Effects** for fading from the background color to target color.
4. Choose **Align Month Start With Week Starting Day** in order to line up the month headings with the week headings.

Date heading *Start* number

If the **Heading Type** is a series of non-repeating numbers, then you can choose a **Start** number.

For example, the heading *Monthly 1, 2, 3,…12, 1* cycles from 1 to 12, then begins again at 1. A *Start* number would be ignored with this Heading Type.

The heading *Monthly 1, 2, 3,…12, 13* begins with 1 and does not start over; therefore, you can use a *Start* number. This is the setting for such a date heading:



This is the result of this date heading in a one-year schedule:

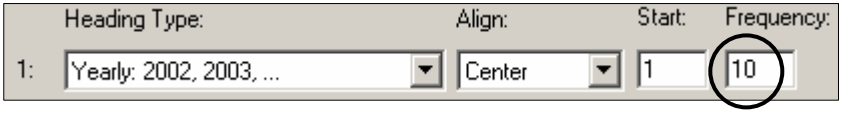
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
3	4	5	6	7	8	9	10	11	12	13	14

For a countdown heading, enter a negative *Start* number, such as –12 instead of 3:

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
12	11	10	9	8	7	6	5	4	3	2	1

Date heading *Frequency* number

Any of the standard heading types can have the **Frequency** altered. For example, for a schedule that covers fifty years, you might want to set the frequency to 10, so that on a yearly heading, only every 10th year is displayed, such as 2000, 2010, 2020, etc. This is the setting for such a date heading:



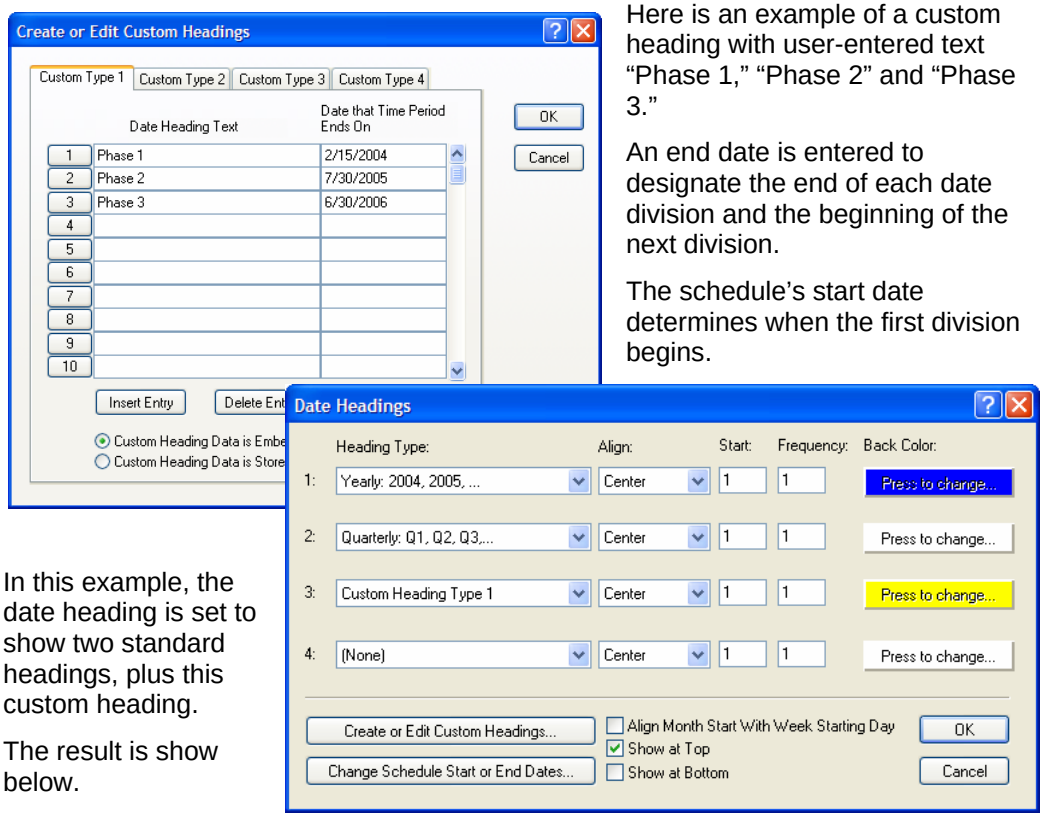
Below is the result of this date heading format. In this example, the schedule dates are from 1/1/2000 to 12/31/2059. The 2000 heading spans from 1/1/2000 to 12/31/2009; the 2010 heading spans from 1/1/2010 to 12/31/2019; and so on.

2000	2010	2020	2030	2040	2050

Custom date heading

There are also 4 custom heading settings, known as *Custom Types*. You set the date and time of each date heading division, and the text for the division.

To edit the custom headings, click the icon (or double-click the schedule's date heading), and then click the **Create or Edit Custom Headings** button.



Here is an example of a custom heading with user-entered text "Phase 1," "Phase 2" and "Phase 3."

An end date is entered to designate the end of each date division and the beginning of the next division.

The schedule's start date determines when the first division begins.

In this example, the date heading is set to show two standard headings, plus this custom heading.

The result is show below.

2003				2004				2005				2006	
Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Phase 1				Phase 2				Phase 3					

Choose **Sort** to arrange the custom heading entries in date order.

Click on a line entry number and choose **Insert Entry** to insert a blank entry line.

Click on a line entry number and choose **Delete Entry** to delete the text and date.

Recommended: Choose **Custom Heading Data is Embedded in Schedule** to allow the custom heading to stay with the schedule in cases where you might send the schedule to a colleague.

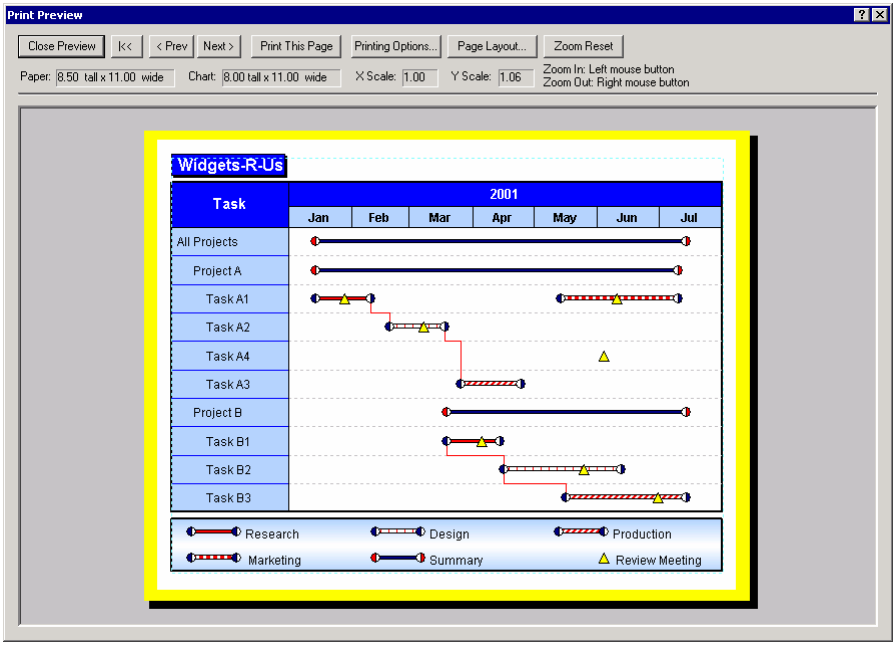
Chapter 7: Printing

With Milestones Professional you can print stamp-size to wall-size schedules using a variety of printing options.

Print Preview

Use the *Print Preview* feature to see a sample of how the schedule will print.

1. Choose **File** | **Print Preview**; or click the icon on the toolbar.



2. Click the **Prev** and **Next** buttons to move from schedule page to page.
3. Click **Printing Options** for output format selections (addressed in the next section).
4. Click **Page Layout** to change the chart size, margins, and rows per page.
5. Point the cursor to a part of the schedule and zoom-in by clicking the left mouse button; zoom-out with the right mouse button.

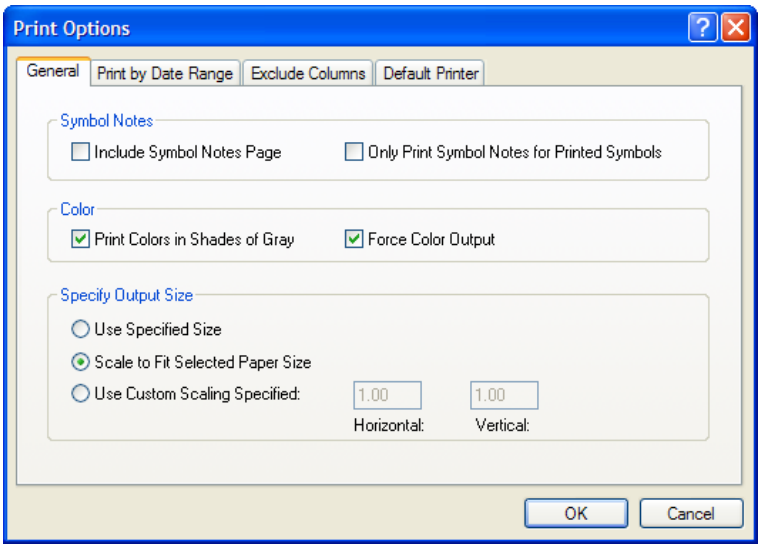
The **light blue dashed line** around the edges shows the margins that you have selected. The **yellow border** identifies the unprintable portion of the schedule. If your chart extends into this yellow area, it may be cut off when it is printed.

Print Options

To format the printing output of your schedule, choose **File** | **Printing Options**.

Symbol notes, color, and output size

Use the toolbar icon to access the *Print Options* dialog box.



General tab printing options:

Include Symbol Notes Page to print a separate page containing the Symbol Notes entries. These will be numbered according to the numbered symbols on the schedule, so that you can match the notes to the symbols.

- To print the symbol notes without printing the schedule, choose **Tools** | **Reports** | **Symbol Notes**. Press the **Copy Report to Clipboard** button and then paste into another application for printing.

Only Print Symbol Notes for Printed Symbols to print only notes within the specified date range (as set under the *Print by Date Range* tab); thus ignoring notes from symbols that are outside the date range being printed.

Print Colors in Shades of Gray to cause the software to use shades of gray on non-color printers. Generally, this should be selected.

Force Color Output to ensure that color commands are sent to color printers. It is ignored on non-color printers. Generally, this should be selected.

Use Specified Size to retain the schedule's horizontal and vertical size settings as set under *Page Layout*. This setting allows the schedule page to span across multiple sheets of paper. This option is also important to choose if you have placed graphics or free-form text on your schedule.

- **Scale to Fit Selected Paper Size** to force the size of the schedule to scale down or up to the size of the printing paper.

- **Use Custom Scaling Specified** to increase or decrease the horizontal and vertical scale of the schedule. For example, change the *Horizontal* factor to .5 to reduce the schedule size horizontally by 50%. The default scaling factor of 1 is for 100%. Note that if you use custom scaling, you cannot make a schedule page span across multiple sheets of paper. Only the *Use Specified Size* option allows that.

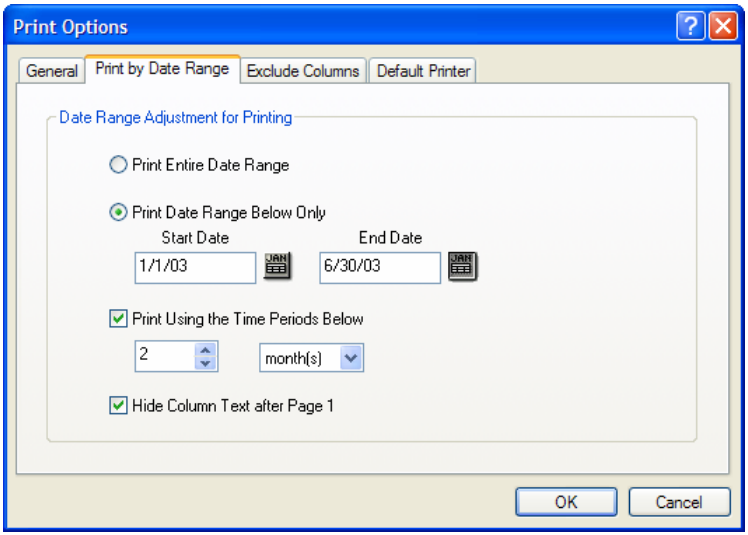
Preview Selected Lines Only is only visible if you call up the *Print Options* dialog while in *Print Preview*. It has the same effect as the **Selection** option under **File** | **Print**.

Print by date range

Choose to print the entire schedule date range (as set under *Format* | *Dates* | *Schedule Details*) or only a specific date range portion of the schedule. Further, you can specify a time period for each printed page as well as hide the columns after the first printed page.

The options selected in this dialog box would cause 2 months to be printed per page from January 2003 through June 2003, for a total of 3 pages.

No column text will appear after the first page.



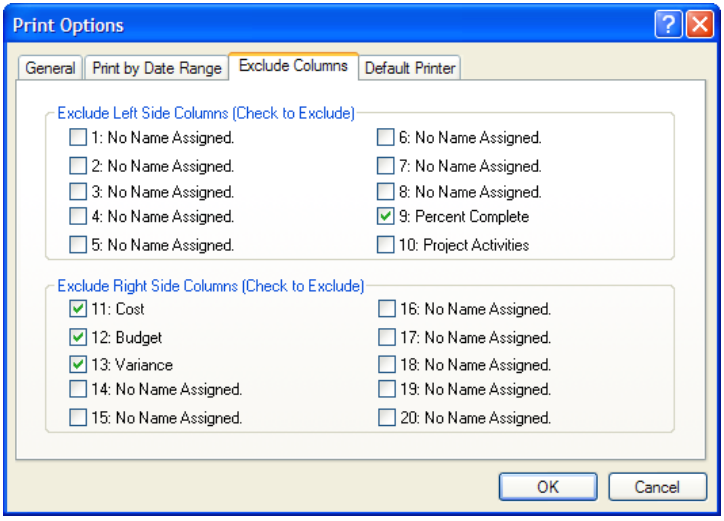
- **Print Entire Date Range** to print the schedule from start date to end date as set under *Format* | *Dates* | *Schedule Details*.

- **Print Date Range Below Only** to specify the start and end date range to be printed. Enter a **Start Date** and **End Date**, or click the calendar icons to choose each date.

- **Print Using the Time Periods Below** to select a time period to be printed on each page.

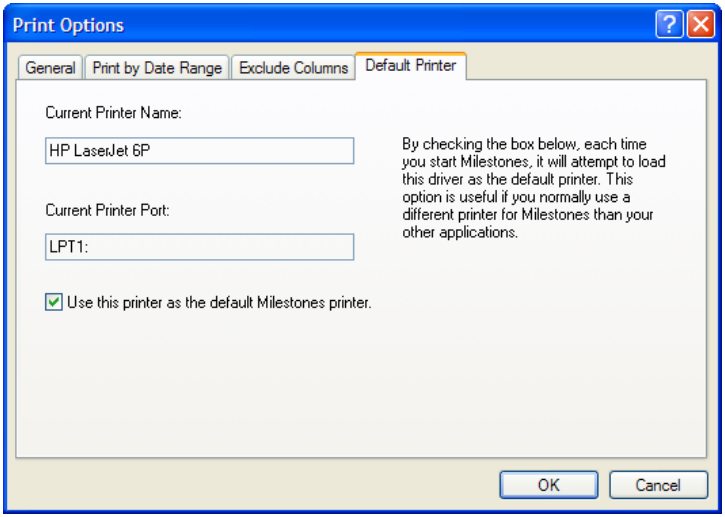
Exclude columns when printing

Under the **Exclude Columns** tab, check each column that should be hidden while printing. Column heading text appears next to column numbers. In this example, all but the “Project Activities” column is hidden for printing purposes:



Default printer

The **Default Printer** tab is useful if you normally use a different printer for Milestones than the printer you have set as the default on your computer. If you check **Use this printer as the default**, then each time Milestones starts, it pre-selects this printer as the current Milestones printer.


Print Options
General
Print by Date Range
Exclude Columns
Default Printer
Current Printer Name:
HP LaserJet 6P
Current Printer Port:
LPT1:
By checking the box below, each time you start Milestones, it will attempt to load this driver as the default printer. This option is useful if you normally use a different printer for Milestones than your other applications.
Use this printer as the default Milestones printer.
OK
Cancel

Chapter 8: Master Schedules

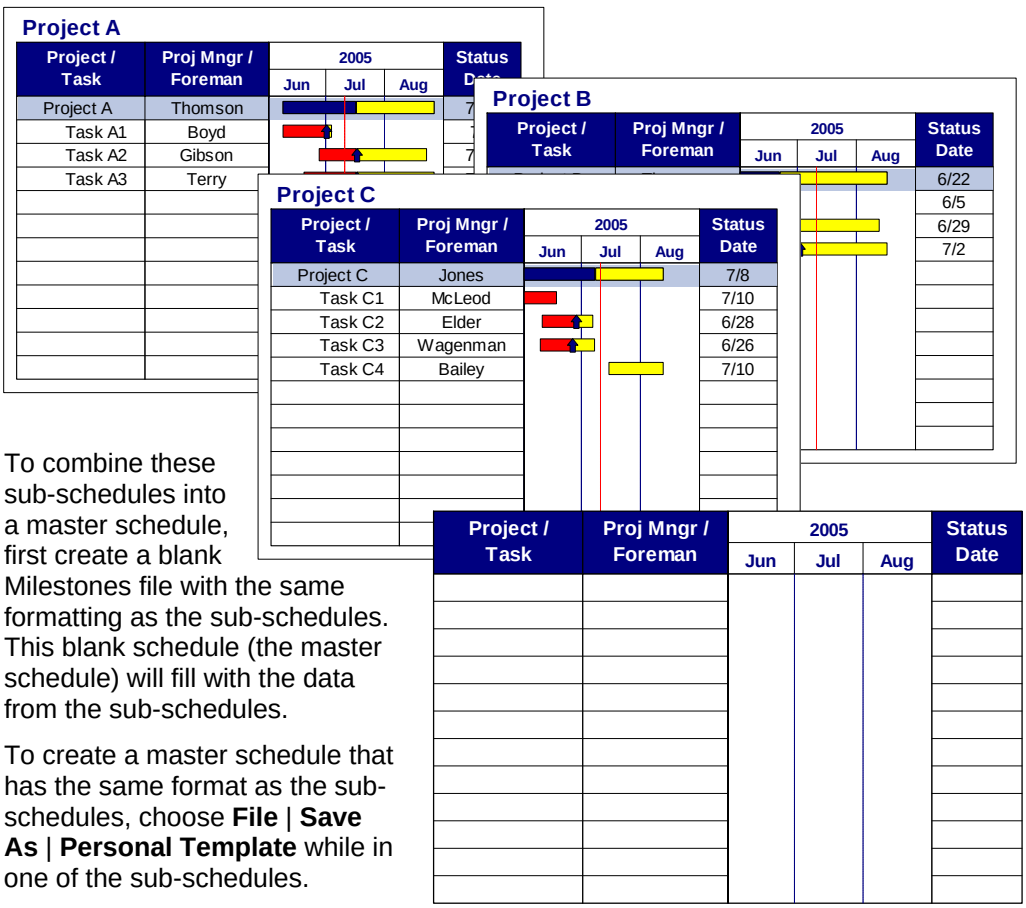
A Milestones Professional master schedule is a compilation of separate Milestones schedules (sub-schedules). Usually, the sub-schedules are each maintained by different people or departments, each responsible for one or more projects. Thus, the master schedule gives a summary view of all projects or all parts of a single project.

Changes to data in the sub-schedules appear in the master schedule. Any changes to the master schedule will not appear in the sub-schedules.

Master Schedule Example

Review this general master schedule scenario, and then continue to the more detailed instructions for formatting, creating and updating a master schedule.

Assume that we have three sub-schedules, Project A, Project B and Project C; which need to be reviewed and presented at a high level.



To combine these sub-schedules into a master schedule, first create a blank Milestones file with the same formatting as the sub-schedules. This blank schedule (the master schedule) will fill with the data from the sub-schedules.

To create a master schedule that has the same format as the sub-schedules, choose **File** | **Save As** | **Personal Template** while in one of the sub-schedules.

Next, click the new file icon on the toolbar, then choose **File** | **Open** | **Personal Template**, and choose the template you just created. This file will be the master schedule.

Add the sub-schedules to the list of source schedules which will populate the master schedule.

After updating the master schedule by choosing **File** | **Update** | **Master Schedule**, the following schedule would result:

Master Schedule

Project / Task	Proj Mngr / Foreman	2005 Jun Jul Aug	Status Date
Project A	Thomson		7/7
Task A1	Boyd		6/21
Task A2	Gibson		7/7
Task A3	Terry		7/7
Project B	Thomson		6/22
Task B1	Mitchell		6/5
Task B2	Gibson		6/29
Task B3	Terry		7/2
Project C	Jones		7/8
Task C1	McLeod		7/10
Task C2	Elder		6/28
Task C3	Wagenman		6/26
Task C4	Bailey		7/10

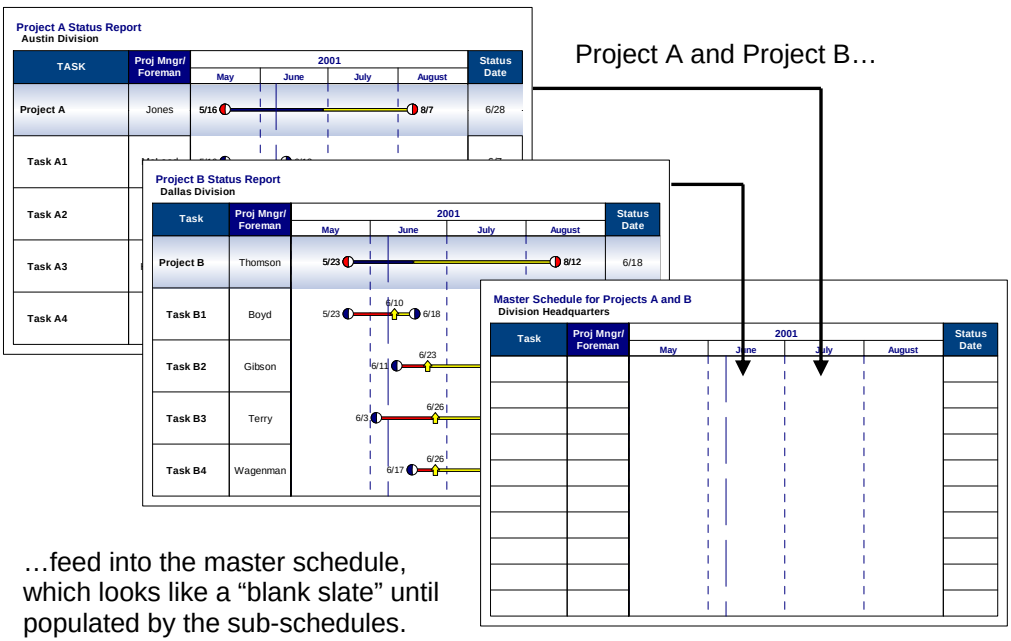
When a master schedule is updated, any graphics, titles, or free-form text originally in the master schedule, will remain. Note also that **only the task lines are read from the sub-schedules**, not titles, graphics, formatting information, or free-form text. In this example, the shading for outline level 1 is set in the master schedule—the shading is not “brought in” from the sub-schedules.

For more detailed information and guidance on creating master schedules, refer to the *Milestones Professional Help Topics* under the *Help* menu, Index keywords “master schedule.”

Format the Master Schedule and Sub-schedules

Before you merge sub-schedules into a master schedule, all sub-schedules and the master schedule should have basically the same format.

- **All columns should be the same type and in the same location.** That is, if the master schedule has one column with text on the left side of the schedule, then all sub-schedules should also have such a column in the same position.
- **The symbols and connectors should be the same or similar, and in the same positions in the toolbox.** When the sub-schedules are merged into the master schedule, the master schedule's symbology is used.
- **The date range should be the same**, as set under *Format* | *Dates* | *Schedule Details*. If the date range in the master schedule is Jan-Dec 2001 and a sub-schedule's date range is Jan-Dec 2002, then the information will still be merged into the master schedule; yet you will have to scroll to see the symbols and connectors.



Project A and Project B…

…feed into the master schedule, which looks like a "blank slate" until populated by the sub-schedules.

The formatting in the master schedule (rows per page, symbol size, text size, chart size, shading, etc.) is applied to all symbols and text that are merged into it.

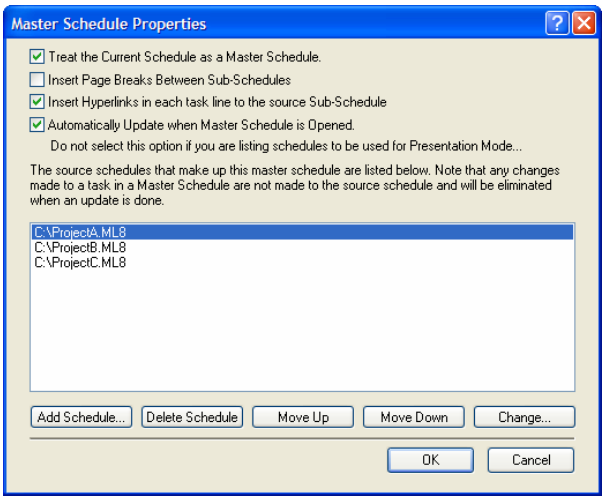
How can you make formatting all of these schedules an easy task? Use a template when creating your schedules; or create a template and apply it to all existing schedules.

See Chapter 12 for more information about templates.

Create a Master Schedule

The master schedule references one or dozens of sub-schedules which will merge together into the master schedule.

1. Open the Milestones schedule that will be the master schedule.
2. Choose **File** | **Master Schedule**. The following dialog box appears:


Master Schedule Properties
Treat the Current Schedule as a Master Schedule.
Insert Page Breaks Between Sub-Schedules
Insert Hyperlinks in each task line to the source Sub-Schedule
Automatically Update when Master Schedule is Opened.
Do not select this option if you are listing schedules to be used for Presentation Mode...
The source schedules that make up this master schedule are listed below. Note that any changes made to a task in a Master Schedule are not made to the source schedule and will be eliminated when an update is done.
C:\ProjectA.ML8
C:\ProjectB.ML8
C:\ProjectC.ML8
Add Schedule...
Delete Schedule
Move Up
Move Down
Change...
OK
Cancel

✍ Sub-schedules will fill the master schedule in the order shown in the *Master Scheduling Properties* dialog box.

✍ When deleting a sub-schedule from the list in the *Master Scheduling Properties* dialog box, the schedule itself is not being deleted.

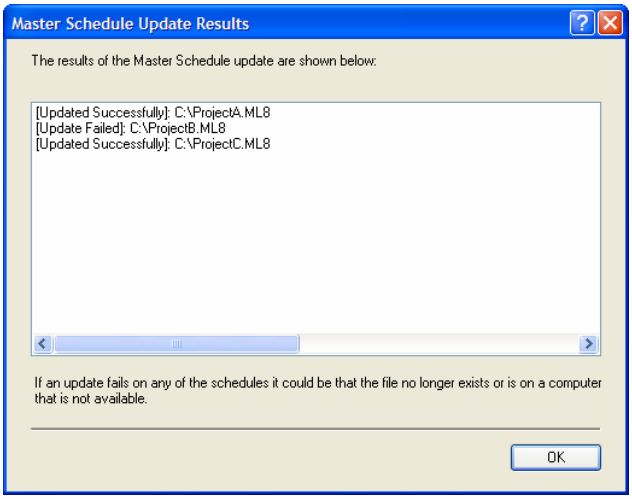
3. ☑ **Treat the Current Schedule as the Master Schedule**.
4. ☑ **Insert Page Breaks Between Sub-Schedules**: Sub-schedules will be separated by page breaks in the master schedule.
5. ☑ **Insert Hyperlinks in each task line to the source Sub-Schedule**: Every task line will have a task line hyperlink shortcut to the source sub-schedule from which that task originated.
6. ☑ **Automatically Update when Master Schedule is Opened**: Each time this master schedule is opened, the latest sub-schedules automatically populate the master schedule.
    - Otherwise, the master schedule has to be updated through *File* | *Update* | *Master Schedule*.
    - It's important that all of the sub-schedules be available when this update is done or they will be left out of the update.
7. Click the **Add Schedule** button to launch the *Windows* browser. Locate and select the sub-schedule to be added to the master schedule. Click **Open** to add it to the master schedule list.
8. Repeat Step 7 to add additional sub-schedules.

9. Use the **Move Up** and **Move Down** buttons to change the order of the schedules.
10. Use the **Change** button to replace a selected file from the sub-schedule list with another Milestones schedule.
11. Use the **Delete** button to remove a selected file from the sub-schedule list.
12. Click **OK** when you are finished adding sub-schedules.

Update the Master Schedule

After adding the sub-schedules to the master schedule, the master schedule is not automatically populated with the sub-schedules' data. The master schedule is either updated when opened, as described in the previous section, or the update is "forced" by choosing **File** | **Update** | **Master Schedule**.

The **Master Schedule Update Results** dialog box appears:


Master Schedule Update Results
The results of the Master Schedule update are shown below:
[Updated Successfully]: C:\ProjectA.ML8
[Update Failed]: C:\ProjectB.ML8
[Updated Successfully]: C:\ProjectC.ML8
If an update fails on any of the schedules it could be that the file no longer exists or is on a computer that is not available.
OK

Keep in mind that once a master schedule is built, any changes made to tasks in the master schedule are NOT also made to the sub-schedules.

All sub-schedules which were selected to merge into the master schedule are listed, along with the path to each schedule.

- If the master schedule found and merged the sub-schedule, then the message is **Updated Successfully**.
- If the master schedule did not merge the sub-schedule, then the message is **Update Failed**.

Failed updates are usually the result of renamed, moved, or deleted sub-schedules.

Sub-schedules can be located on other computers and referred to by a UNC path, such as \\server2\schedules\master1.ml8. If the "server2" machine was not available when the update was done, then the update for "master1.ml8" would fail and its task lines would be left out of the master schedule.

Tips and considerations regarding master schedules

General information

The typical use of a master schedule is to see the progress of selected projects in a single Milestones Professional file.

Generally, all sub-schedules should have the same format, especially column types and locations. Create a template or blank chart to meet this need.

If changes are made to a master schedule, those changes are not retained when it is updated with the latest sub-schedule data.

All sub-schedules should follow an agreed-upon hierarchy when displaying various levels of detail. Even agreeing on the names of the various project stages is a good idea. For example, in all sub-schedules, level 1 could be the project name; level 2 as the phase level (e.g. "Research," "Development," "Production," "Testing," "Delivery"); level 3 as the task level (e.g. under "Testing" phase..."Beta Product 1," "Beta 2," "Beta 3").

If the master schedule is to contain a single summary row for all merged projects, then all sub-schedules need to begin at outline level 2. This allows for an outline level 1 roll-up summary of all projects in the master schedule.

Sub-schedules should be saved in a static location, such as a network folder, to ensure the master schedule has access to the latest sub-schedules' data. As always, be sure to frequently back-up these files.

A shared format for the master schedule and sub-schedules

By creating a schedule template or blank chart, and using it for all sub-schedules and the master schedule, the format is consistent and ensures that sub-schedules will merge successfully into the master schedule. Distribute a copy of the template or blank chart to each person entering project data into his sub-schedule.

Why is a common format so important? If one sub-schedule contains columns of duration values, percents complete, and end dates; and another sub-schedule contains columns of baseline dates and task names; then the master schedule will not know which columns to display. Thus, all schedules should have columns of the same format and placement.

After each person populates his sub-schedule, it's recommended that the schedule is saved to a shared network folder and that the name of the sub-schedule is passed along to the keeper of the master schedule.

More resources

For more detailed information, examples and guidance on creating master schedules, refer to the *Milestones Professional Help Topics* under the *Help* menu, Index keywords “master schedule.”

Chapter 9: Symbol Linking

With symbol linking, a symbol's date in one schedule can be based on a symbol's date in another schedule or the same schedule.

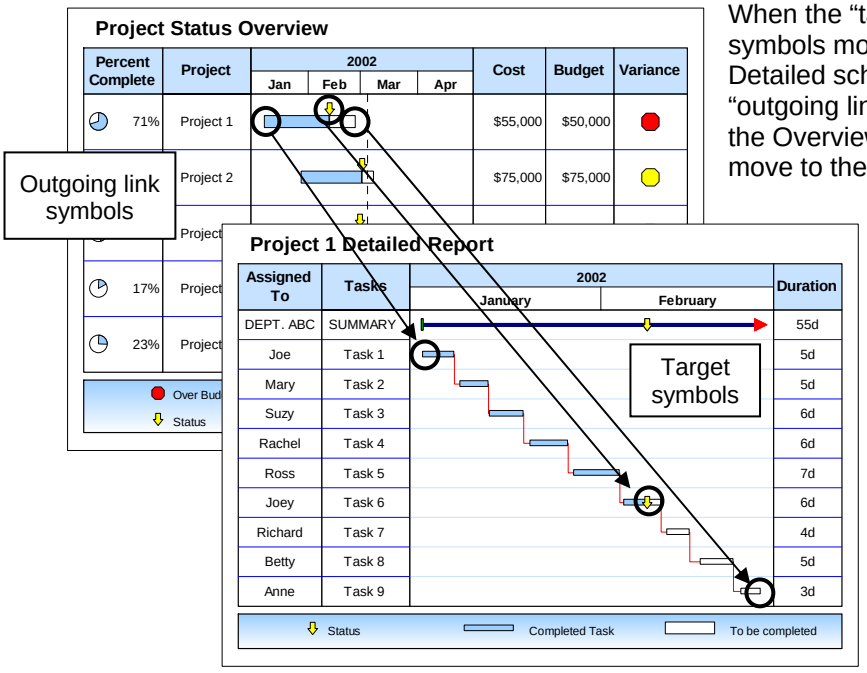
Symbol linking involves a few steps, including naming the target symbol, establishing the link from the outgoing symbol to the target symbol, and updating the linked symbols.

A target symbol controls the date of a symbol whose outgoing link points to the target symbol. The symbol with the outgoing link will find the named target symbol, acquire the date of the target symbol, and use that date to move the symbol to the same date.

Symbol Linking Example

In the example below, there are two schedules. The “Project Status Overview” schedule is used by top-level management to track status, dollars, and percent complete, across multiple projects. The “Project 1 Detailed Report” schedule is used by mid-management to track the details of the project, including task assignments, task flow, and task durations.

In the Project Status Overview schedule, the start date on the Project 1 task line is linked to the first start date in the Project 1 Detailed Report schedule. Likewise, the arrow status symbol in the Overview schedule is linked to the arrow status symbol in the Detailed schedule. Finally, the end dates are linked, as shown below.



When the “target” symbols move in the Detailed schedule, the “outgoing link” symbols in the Overview schedule move to the same date.

Link Symbols between Separate Schedules

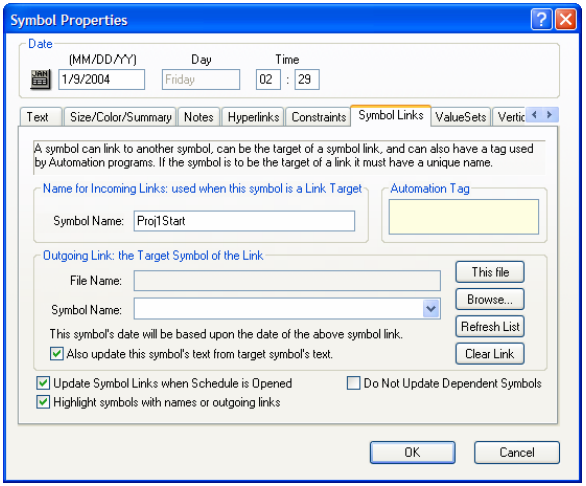
Linking symbols which are on two separate schedules involves setting up two things:

1. The symbol to be used as the “target” of the link must be given a unique name, so that it can be found when the “outgoing link” symbol needs to check the target symbol’s date to update its own date.
2. The symbol with the outgoing link must reference the target symbol using the full path (UNC path or Drive path) and schedule filename along with the target symbol name.

Name the target symbol

The date of this target symbol will drive the date of any symbol whose outgoing link points to this target symbol.

1. Click the arrow tool in the toolbox.
2. In the schedule that will control the dates of symbols in another schedule, double-click the appropriate symbol.
   - In the example on the previous page, this would be the “Task 1” start date in the “Detailed Report” schedule.
3. Click the **Symbol Links** tab, as shown below:


Symbol Properties
Date
(MM/DD/YY)
Day
Time
1/9/2004
Friday
02
29
Text
Size/Color/Summary
Notes
Hyperlinks
Constraints
Symbol Links
ValueSets
A symbol can link to another symbol, can be the target of a symbol link, and can also have a tag used by Automation programs. If the symbol is to be the target of a link it must have a unique name.
Name for Incoming Links: used when this symbol is a Link Target
Automation Tag
Symbol Name:
Proj1Start
Outgoing Link: the Target Symbol of the Link
File Name:
Symbol Name:
This file
Browse...
Refresh List
Clear Link
This symbol's date will be based upon the date of the above symbol link.
Also update this symbol's text from target symbol's text.
Update Symbol Links when Schedule is Opened
Do Not Update Dependent Symbols
Highlight symbols with names or outgoing links
OK
Cancel

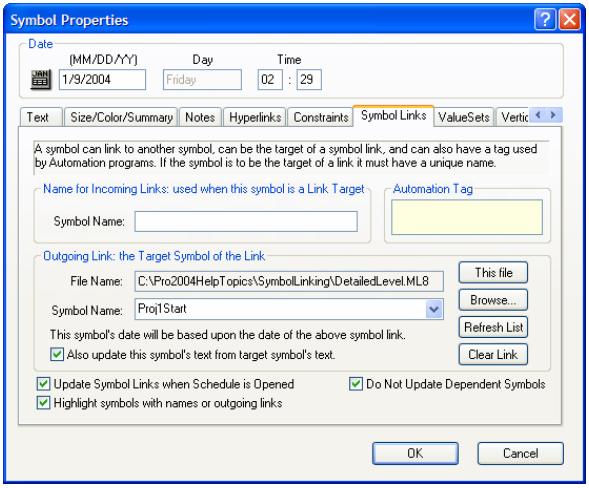
4. Under **Name for Incoming Links**, enter a **Symbol Name**.
5. **Highlight symbols with names or outgoing links**: Attaches an icon to all symbols involved in symbol linking, as follows: attaches to symbols with an outgoing link; attaches to symbols with a target name; attaches to symbols with both an outgoing link and a target name.

6. Click **OK**.
7. Repeat this process to name other target symbols, and then **Save** the schedule .

Link a symbol to the named target symbol

When a target symbol's date changes, the symbol linked to the target symbol will also change to that date.

1. Click the arrow tool in the toolbox.
2. In the appropriate schedule, double-click the symbol whose outgoing link should point to a target symbol.
   - In the example on page 9-1, this would be the “Project 1” task line’s start date in the “Overview” schedule.
3. Click the **Symbol Links** tab, as shown below:



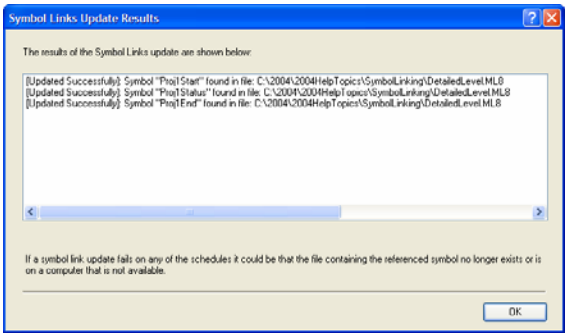
4. Under the **Outgoing Link** section, choose the **Browse** button.
5. Locate the schedule that contains the target symbol, click on the file name, and click **Open**.
6. To the right of **Symbol Name**, all available target symbol names for that schedule will be listed.
   - If the target symbol names do not appear, then click the **Refresh List** button. If they still do not appear, you may not have saved the schedule that contains the target symbols.
7. Choose the appropriate **Symbol Name** (the target symbol’s name) from the list.

8. **Also update this symbol's text from target symbol's text**: The symbol text displayed by the outgoing symbol will automatically display the symbol text used by the target symbol. When changes are made to the target symbol's text, the outgoing symbol's text is updated.
9. **Update Symbol Links when Schedule is Opened**: All symbols with outgoing links in the newly opened schedule will look for the target symbols and update symbol dates accordingly.
10. **Highlight symbols with names or outgoing links**: Attaches an icon to all symbols involved in symbol linking, as follows: attaches to symbols with an outgoing link; attaches to symbols with a target name; attaches to symbols with both an outgoing link and a target name.
11. **Do Not Update Dependent Symbols**: If a symbol with an outgoing link has dependent tasks, normally those tasks will move when their parent symbol is updated with the target symbol's date. Check this option to prevent any dependent symbols from moving to new dates.
12. Choose **Clear Link** to break the link between this symbol and the **File Name** and **Symbol Name** that is displayed.
13. Click **OK**. (See the next section for how to update linked symbols.)
14. Repeat this process to link other symbols to target symbols.

Update Linked Symbols

1. Open the schedule containing the symbols with outgoing links.
    - If **Update Symbol Links when Schedule is Opened** was checked for this schedule, then all symbols with outgoing links in the newly opened schedule will look for the target symbols and update symbol dates accordingly.
2. If no update occurred, choose **File** | **Update** | **Linked Symbols**.

A dialog box reports the successful and failed updates:


Symbol Links Update Results
The results of the Symbol Links update are shown below:
[Updated Successfully] Symbol "Proj1Start" found in file: C:\2004\2004HelpTopics\SymbolLinking\DetailedLevel.ML8
[Updated Successfully] Symbol "Proj1Status" found in file: C:\2004\2004HelpTopics\SymbolLinking\DetailedLevel.ML8
[Updated Successfully] Symbol "Proj1End" found in file: C:\2004\2004HelpTopics\SymbolLinking\DetailedLevel.ML8
If a symbol link update fails on any of the schedules it could be that the file containing the referenced symbol no longer exists or is on a computer that is not available.
OK

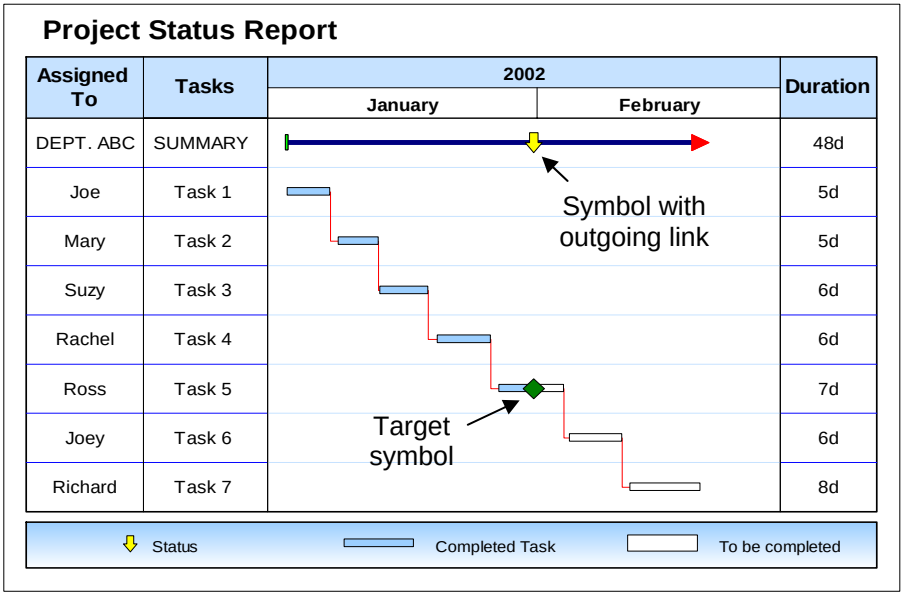
The name of each target symbol that was searched for is listed along with the schedule name and location. The bracketed message reports if the *[Update Failed*| or *[Updated Successfully]*.

If any of the updates failed, the schedule containing the target symbols may no longer exist, the computer containing the schedule may not be available, or the target symbol's name may have changed or may have been deleted.

Link Symbols within the Same Schedule

The use of symbol links within the same schedule involves setting up two things:

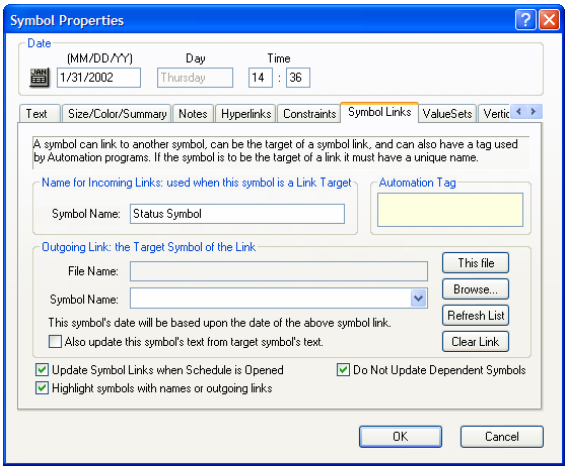
1. The symbol to be used as the “target” of the link must be given a unique name, so that it can be found when the “outgoing link” symbol needs to check the target symbol’s date to update its own date.
2. The symbol with the outgoing link must reference the target symbol.



In this example, the diamond symbol controls the date of the arrow symbol on the summary line. Thus, the arrow symbol has an outgoing link to the diamond symbol which is a named target symbol. When the diamond symbol (target) moves, the arrow symbol (with outgoing link) will move accordingly.

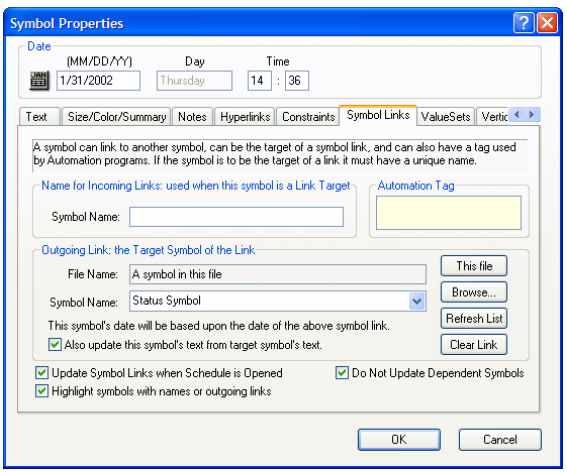
Name the target symbol

1. Click the arrow tool in the toolbox.
2. Double-click the symbol that will control the date of another symbol. In the example on page 9-5, it would be the diamond symbol.
3. Click the **Symbol Links** tab, as shown here:
4. Under **Name for Incoming Links**, enter a **Symbol Name**.
5. Click **OK**.
6. Repeat this process to name other target symbols in this schedule.
7. Save the schedule .


Symbol Properties
Date
(MM/DD/YY)
Day
Time
1/31/2002
Thursday
14 : 36
Text
Size/Color/Summary
Notes
Hyperlinks
Constraints
Symbol Links
ValueSets
A symbol can link to another symbol, can be the target of a symbol link, and can also have a tag used by Automation programs. If the symbol is to be the target of a link it must have a unique name.
Name for Incoming Links: used when this symbol is a Link Target
Automation Tag
Symbol Name:
Status Symbol
Outgoing Link: the Target Symbol of the Link
File Name:
Symbol Name:
This file
Browse...
Refresh List
Clear Link
This symbol's date will be based upon the date of the above symbol link.
Also update this symbol's text from target symbol's text.
Update Symbol Links when Schedule is Opened
Do Not Update Dependent Symbols
Highlight symbols with names or outgoing links
OK
Cancel

Link a symbol to the named target symbol

1. Click the arrow tool in the toolbox.
2. Double-click the symbol whose outgoing link should point to a target symbol. In the example on page 9-5, this would be the arrow symbol.
3. Click the **Symbol Links** tab, as shown here:
4. Under the **Outgoing Link** section, choose **This file**.
5. To the right of **Symbol Name**, all available target symbol names for this schedule will be listed.
   - If the target symbol name(s) do not appear, then click the **Refresh List** button.
6. Choose the appropriate **Symbol Name** (the target symbol's name) from the list.


Symbol Properties
Date
(MM/DD/YY)
Day
Time
1/31/2002
Thursday
14 : 36
Text
Size/Color/Summary
Notes
Hyperlinks
Constraints
Symbol Links
ValueSets
A symbol can link to another symbol, can be the target of a symbol link, and can also have a tag used by Automation programs. If the symbol is to be the target of a link it must have a unique name.
Name for Incoming Links: used when this symbol is a Link Target
Automation Tag
Symbol Name:
Outgoing Link: the Target Symbol of the Link
File Name:
A symbol in this file
Symbol Name:
Status Symbol
This file
Browse...
Refresh List
Clear Link
This symbol's date will be based upon the date of the above symbol link.
Also update this symbol's text from target symbol's text.
Update Symbol Links when Schedule is Opened
Do Not Update Dependent Symbols
Highlight symbols with names or outgoing links
OK
Cancel

7. **Also update this symbol's text from target symbol's text**: The symbol text displayed by the outgoing symbol will automatically display the symbol text used by the target symbol. When changes are made to the target symbol's text, the outgoing symbol's text is updated.
8. **Update Symbol Links when Schedule is Opened**: All symbols with outgoing links in the newly opened schedule will look for the target symbols and update symbol dates accordingly.
9. **Highlight symbols with names or outgoing links**: Attaches an icon to all symbols involved in symbol linking, as follows: attaches to symbols with an outgoing link; attaches to symbols with a target name; attaches to symbols with both an outgoing link and a target name.
10. **Do Not Update Dependent Symbols**: If a symbol with an outgoing link has dependent tasks, normally those tasks will move when their parent symbol is updated with the target symbol's date. Check this option to prevent any dependent symbols from moving to new dates.
11. Choose **Clear Link** to break the link between this symbol and the **File Name** and **Symbol Name** that is displayed.
12. Click **OK**. (The symbols with outgoing links will not update until you choose to do so.)
13. Repeat this process to link other symbols to target symbols.
14. To update the linked symbols, choose **File** | **Update** | **Linked Symbols**.
    - Refer to the *Update Linked Symbols* section in this chapter for more details.

View a Report of Symbol Names and Links

Generate reports on data embedded in symbols, including symbol notes, hyperlinks, symbol target names and links between symbols (i.e. symbol linking).

Generate a report by selecting **Tools** | **Reports** and choose a report.

Each report can be copied to the clipboard for pasting into another program for printing.

Symbol to Symbol Links Report

The **Symbol to Symbol Links Report** displays data for each symbol which has an outgoing link to another symbol, including the task row on which the symbol appears, the symbol's ordinal placement from left to right along the task row, the symbol's date, the name of the symbol to which it is linking, and the full path to the file containing the named symbol.

Symbol Names Report

The **Symbol Names Report** displays data for each symbol which has a target name, including the task row on which the symbol appears, the symbol's ordinal placement from left to right along the task row, the symbol's date, and the symbol's link target name as found under the *Symbol Links* tab.

Symbol Linking versus Master Scheduling

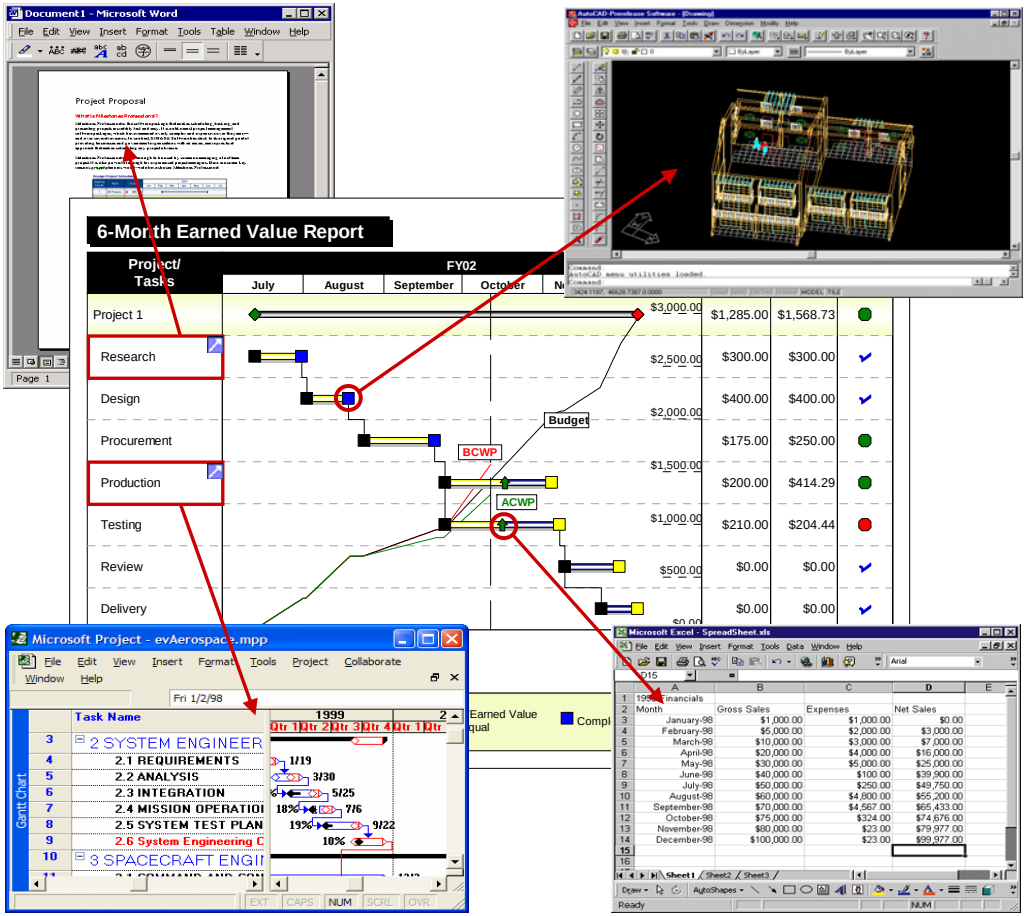
Schedules with symbol links are another way to maintain a type of “master schedule,” but without the task lines being replaced each time an update is done (as is true in the Master Schedule feature). When symbols are updated via symbol links, only the dates are updated, nothing else (unless the symbol text option is chosen). However, in using a symbol linking method to update a top-level schedule, there is no way of knowing about new or deleted sub-tasks. Thus, the method you use depends upon your own needs and methods of operation.

For more information and examples, refer to the *Milestones Professional Help Topics* under the *Help* menu, Index keywords “symbol linking.”

Chapter 10: Hyperlinks

Any symbol or task line on your schedule can have hyperlink shortcuts to other Milestones schedules, documents or Web pages. Launch a hyperlink to open the linked file or URL.

With this feature, you can use a Milestones schedule as the project hub with quick links to all project related information—a great way to cross-reference or to drill-down for more detail on any project activity.



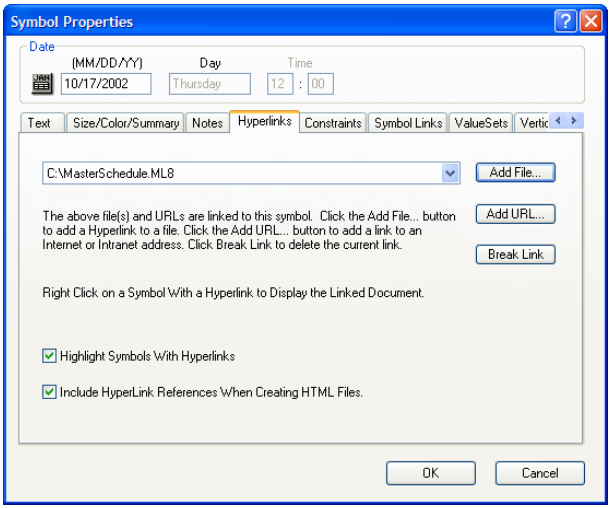
Using the Internet Publishing Wizard, a schedule with symbol hyperlinks is automatically transformed into a graphic with “hotspot” links from symbols to the schedules, documents, and web pages that are hyperlinked to the symbols. That graphic is included in an HTML document, ready for uploading to your Internet or Intranet site.

See Chapter 13 for how to create linked web pages from symbol hyperlinks.

Add a Hyperlink to a Symbol

Dozens of hyperlinks can be attached to any symbol on the schedule.

1. Click the arrow tool in the toolbox.
2. Double-click the symbol to which you will attach the hyperlink.
3. Click the **Hyperlinks** tab, as shown here:

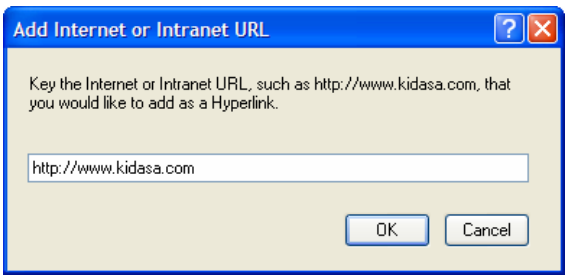


To add a file as a hyperlink (such as a Milestones file, a Word document, etc.):

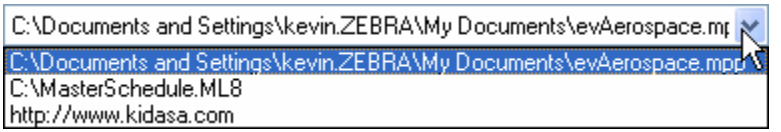
4. Click the **Add File** button.
5. In the **Link Document** dialog box, locate and select the file to hyperlink.
    - You may need to change the **Files of type** to **All Files(*.*)**.
6. Click **Open** to add the file as a hyperlink.

To add a URL as a hyperlink (such as an Internet or Intranet site):

7. Click the **Add URL** button to see the following dialog box:
8. Enter the complete address to the site, and then click **OK**.


Add Internet or Intranet URL
Key the Internet or Intranet URL, such as http://www.kidasa.com, that you would like to add as a Hyperlink.
http://www.kidasa.com
OK
Cancel

9. View your hyperlinks by clicking the drop arrow to the left of *Add File*.



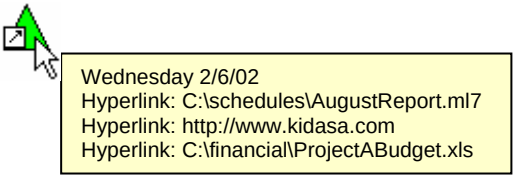
10. **Highlight Symbols With Hyperlinks** to add an arrow icon to all symbols that contain hyperlinks, as shown here:

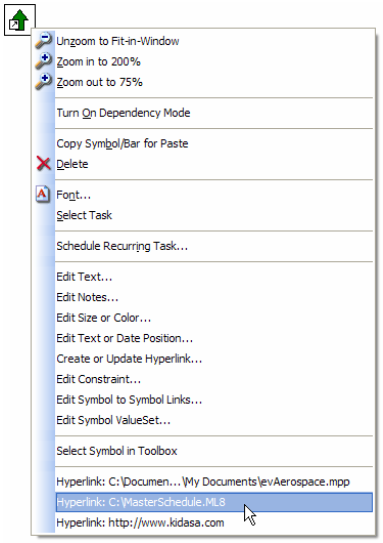
11. **Include Hyperlink References When Creating HTML Files** to include a numbered list of hyperlink URLs in the HTML document, when using the Internet Publishing Wizard. This setting will be overridden if you check/uncheck **Include Symbol Hyperlinks in HTML File** during the Internet Publishing Wizard process.
12. After adding all hyperlinks, click **OK**.

Activate a Hyperlink from a Symbol

When you activate (or launch) a hyperlinked file or URL, the selected file or URL will open in the appropriate program.

1. Click the arrow tool in the toolbox.
2. Hover over the symbol to see the available hyperlinks, as shown here:
3. Right-click the symbol that contains the hyperlink, and view the list of hyperlinks at the bottom of the right-click menu.
4. Move your cursor to the list of hyperlinks and click once on the one you wish to activate.
5. The hyperlink will open in the appropriate application (e.g. Word, Internet Explorer, Milestones, etc.).





You can increase the length of time that the Tooltip displays when hovering over a symbol.

Choose **Tools** | **Options** | **General**.

Under **Normal Tooltip Display**, choose a different length of time.

Add a Hyperlink to a Task Line

Dozens of hyperlinks can be attached to any task line on the schedule.

1. Click the arrow tool in the toolbox.
2. Double-click any column cell on the appropriate task line.
3. Choose the **Task/Row Settings and Info** tab.

To add a file as a hyperlink (such as a Milestones file, a Word document, etc.):

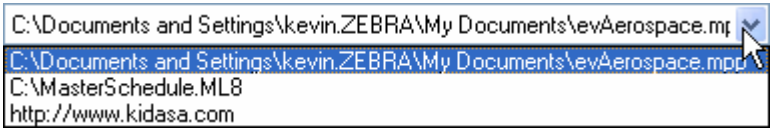
4. Click the **Add File** button.
5. In the **Link Document** dialog box, locate and select the file to hyperlink.
    - You may need to change the **Files of type** to **All Files(*.*)**.
6. Click **Open** to add the file as a hyperlink.

To add a URL as a hyperlink (such as an Internet or Intranet site):

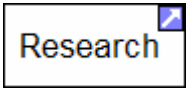
7. Click the **Add URL** button to see the following dialog box:
8. Enter the complete address to the site, and then click **OK**.

Add Internet or Intranet URL
Key the Internet or Intranet URL, such as http://www.kidasa.com, that you would like to add as a Hyperlink.
http://www.kidasa.com
OK
Cancel

9. View your hyperlinks by clicking the drop arrow to the left of *Hyperlinks*.



10. **Show Hyperlink icons** to add an arrow icon to all task lines that contain hyperlinks, as shown here. The icon appears in the column cell on the left side of the schedule, closest to the schedule area.



11. After adding all hyperlinks, click **OK**.

To remove a hyperlink, select the hyperlink you want to remove in the drop-down list of existing hyperlinks. Press the **Break Link** button.

Activate a Hyperlink from a Task Line

When you activate (or launch) a hyperlinked file or URL, the selected file or URL will open in the appropriate program.

1. Right-click a task line that has a hyperlink.
2. Choose **Hyperlink** and select from the list of hyperlinked files and URLs.

-or-

1. Click the hyperlink icon associated with the task line.
    - If this icon is not visible, then use the method described above.
    - See the previous page for how to show hyperlink icons.
2. In the **Select Hyperlink to Launch** dialog box, choose the file or URL from the list and then **OK**.
    - The right-most column on the left side of the schedule must not be hidden in order to successfully select this icon.
3. The hyperlink will open in the appropriate application (e.g. Word, Internet Explorer, Milestones, etc.).

Activate a Hyperlink while in Calendar View

Hyperlinks attached to symbols while in the Gantt View are carried over to the Calendar View. Note that symbols on summary rows will not display symbol hyperlinks in the Calendar View. Only symbol hyperlinks attached to symbols at the lowest outline level will appear in the Calendar View.

1. Move the cursor to the arrow next to the calendar day.
2. Click the arrow to launch the list of hyperlinks for that day; or right-click and choose **Hyperlinks**.
3. Choose the hyperlink and then **OK**.

Remove a Hyperlink from a Symbol

Delete one or all hyperlinks attached to a symbol or task line on the schedule.

1. Click the arrow tool in the toolbox.
2. Double-click the symbol which has the hyperlink(s).
3. Click the **Hyperlinks** tab.
4. Click the drop-down arrow to view all available hyperlinks, and select the link to be deleted.
5. Click the **Break Link** button and then **OK**.

Remove a Hyperlink from a Task Line

Delete one or all hyperlinks attached to a symbol or task line on the schedule.

1. Click the arrow tool in the toolbox.
2. Double-click any column cell on the appropriate task line.
3. Choose the **Task/Row Settings and Info** tab.
4. Click the drop-down arrow to view all available hyperlinks, and select the link to be deleted.
5. Click the **Break Link** button and then **OK**.

Hyperlinks as Column Text or Freeform Text

A hyperlink can be added as a column cell text entry or as a freeform text entry. The link can be to a URL or document.

1. Click the text tool in the toolbox.
2. Click once in the column cell that will contain the hyperlink (or anywhere in or outside the schedule for freeform text).
3. Type the URL (e.g. http://www.kidasa.com) or document link (e.g. C:\Financial\ProjectXBudget.xls).
4. To launch the hyperlink, click once on the URL or document path and name, and then double-click on it to highlight it.
5. The URL should now be highlighted. Choose **Tools** | **Launch Highlighted URL or document**.

Symbol Hyperlinks Report

Generate reports on data embedded in symbols, including symbol notes, hyperlinks, symbol target names and links between symbols (i.e. symbol linking).

Generate a report by selecting **Tools** | **Reports**.

Each report can be copied to the clipboard for pasting into another program for printing.

The **Symbol Hyperlinks Report** displays data for each symbol which has a hyperlink, including the task row on which the symbol appears, the symbol's ordinal placement from left to right along the task row, the symbol's date and the full path to the hyperlinked file.

Chapter 11: Working with other Applications

Milestones Professional can read information from other sources including MS Project MPX, MPP, and MPD files; comma delimited files; Excel and other spreadsheet data copied to the clipboard; ODBC data sources and more.

You can copy and paste a Milestones Professional schedule into another application such as Word, Excel, and PowerPoint. The schedule can be a picture or an embedded or linked object. You can also “map” (copy and paste) information from another application, such as an Excel spreadsheet, into Milestones.

For those who also have MS Project 98, 2000, 2002, or 2003 installed, use Milestones’ import wizard for creating presentation-ready reports from MPP and MPD files. Milestones Professional can also import MPX, CSV and TXT files created from MS Project.

For moving data from Milestones to other applications, Milestones schedules can be exported to MPX, CSV, and XML formats.

For programmers, Milestones Professional also supports OLE Automation for creating a custom interface between Milestones and any OLE compliant application. Using Visual Basic, C++ or other programming languages, it’s easy to interchange data programmatically with other applications and databases. The programming that makes use of this automation feature is created by the user.

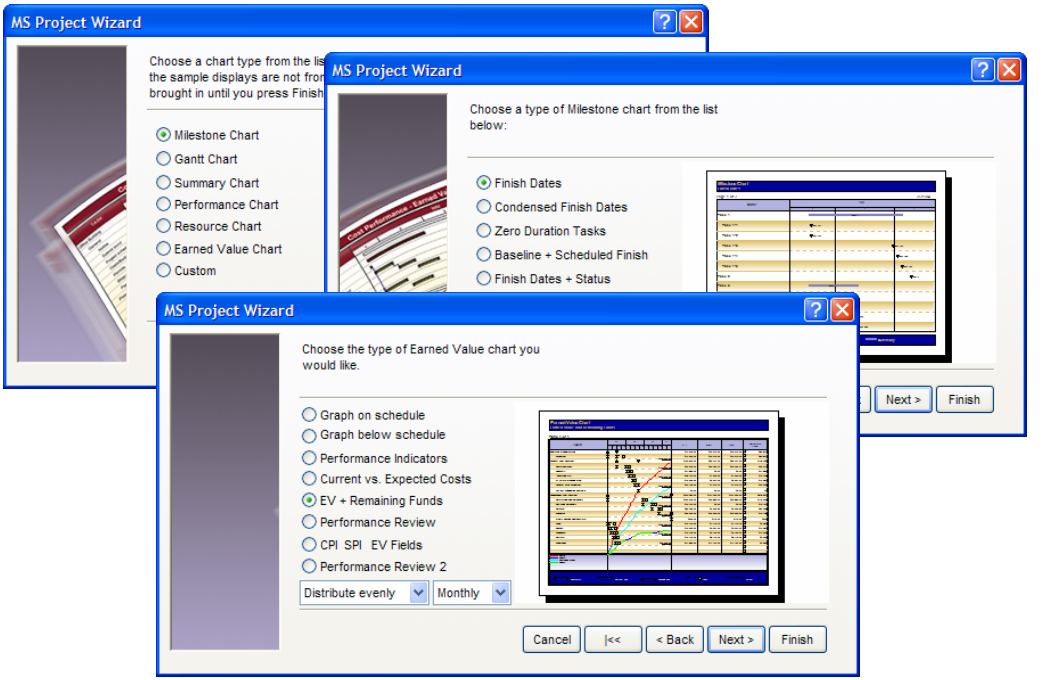
Create Presentation-Ready Reports from MS Project

Milestones Professional offers a direct interface to Microsoft Project, which makes it easy to generate chart formats beyond the standard formats offered by Project.

Project-to-Milestones Wizard

Use the Project-to-Milestones Wizard to choose from more than 35 built-in report formats for creating presentation-ready schedules from MS Project files, when MS Project is installed.

1. Choose **File** | **Open** | **MS Project MPP File**.
    - If you are opening an MS Project Server file, choose *File* | *Open* | *MS Project Server*. It's best to first log-on to MS Project Server before importing.
2. Select the MPP file and click **Open**.
3. Follow the *MS Project Wizard* to create a Milestones schedule that meets your needs.



Once in Milestones, you can further customize your schedule.

See pages 1-24 and 1-25 for selected examples.

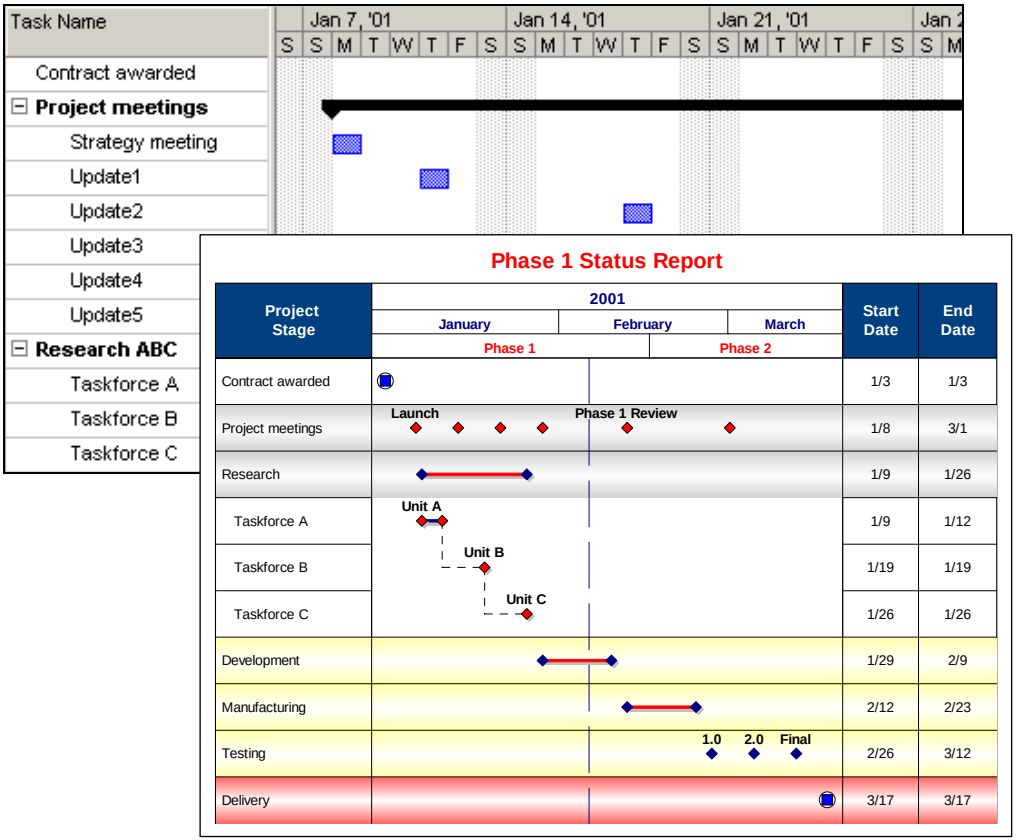
For complete documentation of the Microsoft Project interface, choose *Milestones / MS Project Interface Help* from the *Help* menu in Milestones.

Refresh your presentation schedules

Once you have imported your Microsoft Project schedules into Milestones, you can later “refresh” the Milestones presentation schedule when dates, text, column values, percent complete and more change in Microsoft Project.

In the example below, the “Phase 1” MS Project schedule was imported into Milestones Professional. For presentation purposes, the title, date heading, columns, symbols, symbol text, and shading were customized in Milestones Professional. Tasks and milestones that reside on several lines in Project were moved to one line in Professional.

If the dates for Update 3 or Taskforce B change, then the user can “refresh” the dates in the Milestones schedule. No need to re-import and reformat. New tasks in Project are added to the bottom of the Milestones Professional schedule.



For complete documentation of the Milestones Professional refresh option, choose *Milestones / MS Project Interface Help* from the *Help* menu in Milestones.

Create a Milestones Schedule from a Spreadsheet

Milestones' *Custom Import* feature is designed to make it easy to bring in data from any application that can copy data to the *Windows Clipboard* or to a comma delimited ASCII file.

For example, if you select cells in an Excel spreadsheet and copy them to the Clipboard, you can then map (paste) them into Milestones Professional.

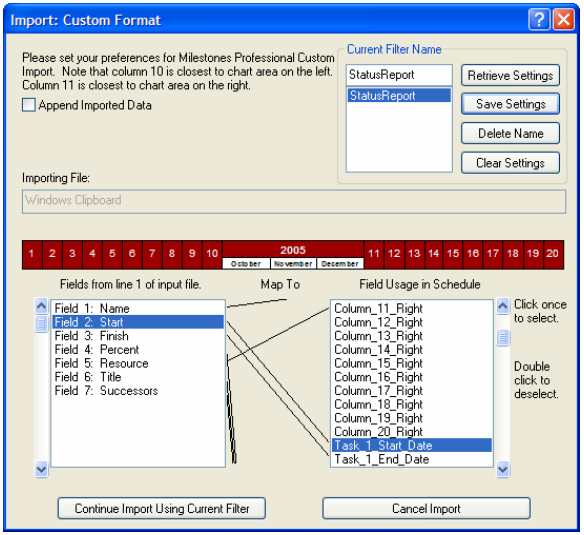
1. Open both Milestones Professional and the spreadsheet application.
2. In Milestones, create columns to accept the data from the spreadsheet. This is not required, though strongly suggested.
   - For the spreadsheet below, you would create (in Milestones) one text column for the "Name" text, one for the "Resource" text and a Percent Complete SmartColumn for the percent values. (choose *Insert* | *Column* and choose a column type).
   - The start and ends dates are not mapped to columns; they are plotted in the schedule area.
   - Set your Milestones date range to accommodate the dates in the spreadsheet (*Format* | *Dates* | *Schedule Details*).
3. In the spreadsheet, highlight and copy the cells to be pasted into Milestones.
   - Each record is expected to be on a line by itself and have the same field layout. Date fields must be formatted as mm/dd/yy (or m/dd/yy or m/dd/yyyy). When using a different separator, choose the format with two digits for each, e.g. dd.mm.yy.

	A	B	C	D	E	F	G
1	Name	Start	Finish	Percent	Resource	Title	Successors
2	Research	1/15/04	3/15/04	100	A. Jones		2
3	Develop	3/16/04	5/15/04	100	B. Goodman		3
4	Test	5/16/04	8/10/04	50	C. Smith		4
5	Manufacture	8/10/04	12/20/04	0	D. Thomas	Chart Title	

4. In Milestones, choose **File** | **Import Data** | **Custom Import from Clipboard**.
5. In the **Import: Custom Format** dialog box, select an existing filter and choose **Retrieve Settings**. Or, create a new import filter using the *Create a new filter* instructions which follow. Then continue with Step 6 below.
6. **Append Imported Data** if the data on the clipboard should appear below existing data in the Milestones schedule. Otherwise, existing data will be overwritten.
7. Click **Continue Import Using Current Filter** to import using the selected filter's column mapping.

Create a new filter in the *Import: Custom Format* dialog box

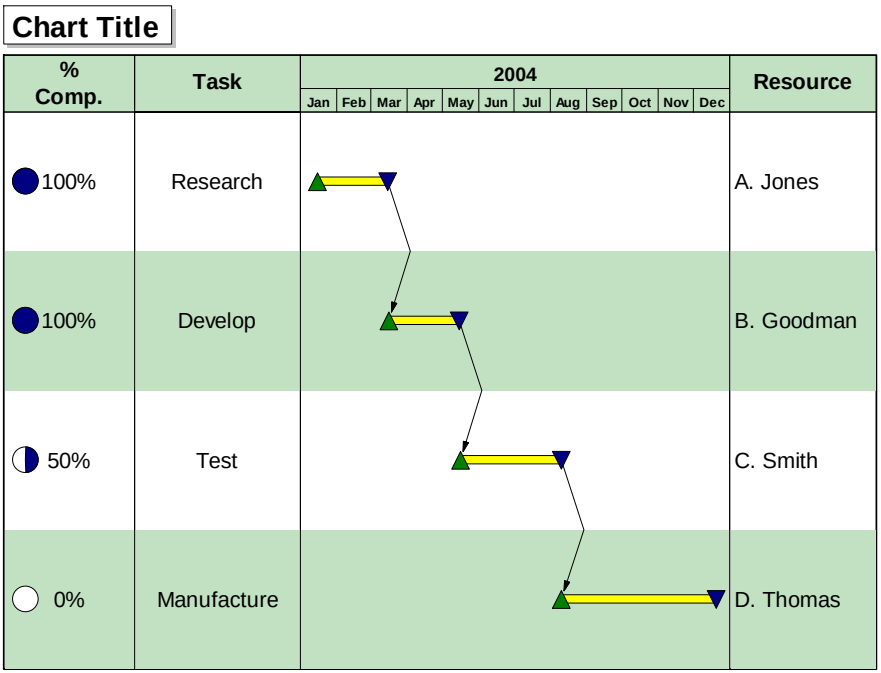
Designate where data should be placed in Milestones by clicking once on a field on the left (clipboard data) and then once on a field on the right (Milestones columns/fields). This mapping of fields will then be saved as a "filter."



1. Click **Clear Settings** to clear any mapping lines.
2. Under **Fields from line 1 of input file**, click once on a field to import; under **Field Usage in Schedule**, click on a Milestones column or field where that data should appear.
   - A connecting line will appear, showing, for example, that the information from **Field 1** will be pasted into **Column_10_Left**.
   - Double-click a field on the right to remove a mapping line.
   - **Field 1** is the left-most column in the spreadsheet. **Field 2** is the second column, and so on.
   - Milestones columns are numbered 1 to 10 on the left side of the schedule, with column 10 being closest to the timeline area. For example, if your schedule only has three columns on the left, then they are numbered 8, 9 and 10 from left to right.
   - Milestones columns are numbered 11 to 20 on the right side of the schedule, with column 11 being closest to the timeline area.
   - *Do not map dates to columns.* Map start dates from start-to-finish task bars to **Task_1_Start_Date** and their finish dates to **Task_1_End_Date**. Map the milestone dates to **Milestone_Date_1**.
   - For mapping multiple start and end dates per task line (per record), map the first set of dates to **Task_1_Start_Date** and **Task_1_End_Date**; map the next set of dates to **Task_2_Start_Date** and **Task_2_End_Date**, and so on.
   - Map multiple milestone dates to **Milestone_Date_1**,… **Milestone_Date_4**.
3. Continue mapping fields.
4. Under **Current Filter Name**, enter a name for these mapping settings.

5. Click **Save Settings**. These settings can now be retrieved during subsequent uses of Custom Import.
6. Click **Continue Import Using Current Filter** to populate the Milestones schedule with the spreadsheet information.

If, after importing, the task bars and milestones do not appear, the date heading may be out of alignment with the task dates. Simply adjust the schedule's visible date range under *Format* | *Dates* | *Schedule Details*. If that does not help, then confirm that the imported dates were formatted correctly and mapped correctly, as noted above.



Create a Milestones Schedule from CSV and TXT Files

You can use this same Custom Import procedure to read TXT and CSV files (ASCII files with fields separated by commas) into Milestones.

1. Choose **File** | **Import Data** | **Custom Import.**
2. Select the CSV file, or change the *Files of Type* to TXT and select a TXT file.
3. Follow the mapping procedure in the previous section.

Export as MPX or XML

For export options, choose **File** | **Export Data** and select an option.

You can export a Milestones Professional schedule in the MPX (Microsoft Project Exchange) format. Simply map the columns in Milestones to selected fields, save those preferences as an MPX file, then open that file in another application which reads MPX files, such as Microsoft Project, Primavera SureTrak, Pert Chart Expert and more. The same basic method applies to XML exporting.

For complete documentation of the Milestones Professional export options, choose *Milestones Professional Help Topics* from the *Help* menu in Milestones. Index keyword: "export."

XML Export

A Milestones schedule can be exported as an XML file. First, choose which Milestones columns should be exported, then save that data as an XML file.

Choose which Milestones columns to export to XML:

1. Under the **File** menu choose **Export Data** | **XML** | **XML Column Mapping**.
2. On the **XML Export Preferences** dialog box, choose **<NAME>** next to the column heading for the project activities.
    - This is the only required field to export. Other critical data is exported by default (e.g. start and duration values for each activity).
3. Choose other fields next to any other Milestones columns you wish to export.

Export the selected data to an XML file:

1. Under the **File** menu choose **Export Data** | **XML** | **Export Schedule to XML File**.
2. Enter a **File name** and **Save**.

Other Export and Import Formats

Milestones Professional continues to support all the proprietary CSV based import and export formats. The primary proprietary format is the "Expanded 20 Column" format. This format gives you complete access, via a CSV file, to most task line and symbol properties.

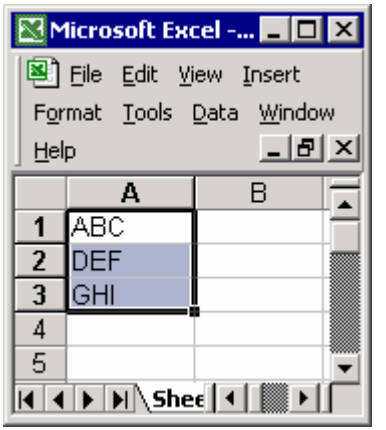
When Milestones is started from a command line or by another application, it is possible to pass it a CSV file, and other information needed, via the command line. This is an alternate method of controlling Milestones via another application. For example, you could have an Access application create a CSV file in a format that Milestones can read, then start Milestones and have it automatically read and format the file for display.

Paste Text and Numbers into Single Columns or Cells

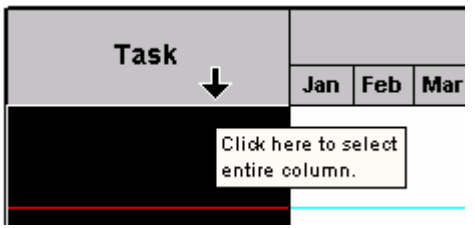
Instead of copying multiple columns of information from another application and using *Custom Import* to map those columns to Milestones (see the beginning of this chapter), you can copy and paste single columns or cells of data into Milestones columns.

Copy and paste text into column cells

If you have a column of cells or a single cell in another application, such as Excel, you can easily paste that data into any Milestones schedule column.



1. In the other application, highlight and copy the column of text, as shown to the right.
2. In Milestones, select the column that will receive the text, as shown below.



3. Choose **Edit** | **Paste Column Text**.

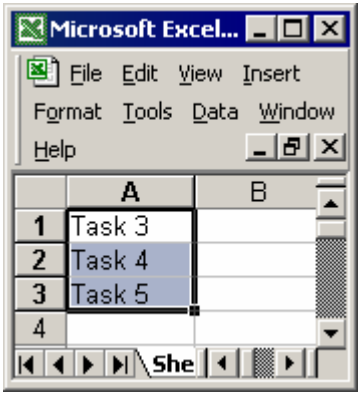
The results are shown to the right.

Task	Jan
ABC	
DEF	
GHI	

Any text already existing in the column will be over-written with the pasted text.

Copy and paste text into column cells below existing text

If you have a column of cells or a single cell in another application, such as Excel, you can easily paste that data into any Milestones schedule column.



1. In the other application, highlight and copy the column of text, as shown to the right.
2. In Milestones, click the tool in the toolbox.
3. Click once in the cell below the existing text—pause—then click again to highlight just that cell, as shown below.

Task	Jan
Task 1	
Task 2	

4. Choose **Edit** | **Paste Text into Cells**.

The results are shown to the right.

Task	Jan
Task 1	
Task 2	
Task 3	
Task 4	
Task 5	

Copy and paste text into a single column cell

You can also paste copied cells into a single column cell in Milestones.

1. In the other application, highlight and copy the column of text (or single text entry).
2. In Milestones, click the text tool in the toolbox.
3. Click once in the cell in which the text should appear.
4. Choose **Edit** | **Paste Text**.

Task	Jan
ABC DEF GHI	

The results are shown to the right.

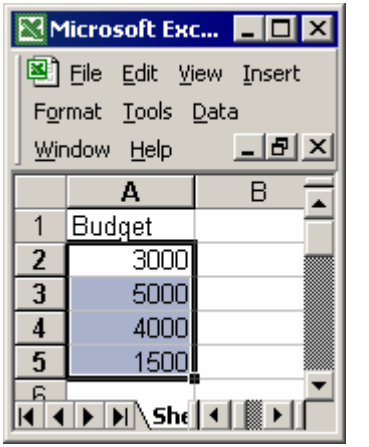
Any text already existing in the column will NOT be over-written with the pasted text.

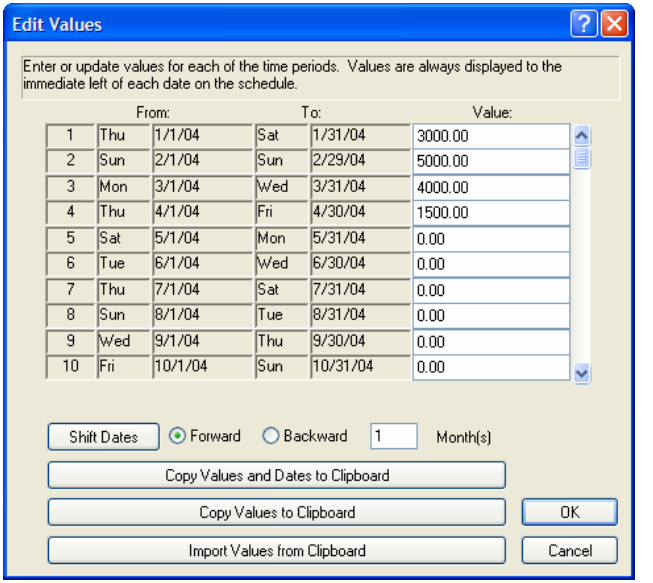
Copy and paste numbers into a ValueSet

You can paste numbers from the clipboard into a Type 1 or Type 2 ValueSet.

See Chapter 14 to set up these ValueSets.

1. In the other application, highlight and copy the column of values, as shown to the right.
2. In the Type 1 or Type 2 ValueSet's **Edit Values** dialog box, click the **Import Values from Clipboard** button, as shown below:




Edit Values
Enter or update values for each of the time periods. Values are always displayed to the immediate left of each date on the schedule.
From: To: Value:
1 Thu 1/1/04 Sat 1/31/04 3000.00
2 Sun 2/1/04 Sun 2/29/04 5000.00
3 Mon 3/1/04 Wed 3/31/04 4000.00
4 Thu 4/1/04 Fri 4/30/04 1500.00
5 Sat 5/1/04 Mon 5/31/04 0.00
6 Tue 6/1/04 Wed 6/30/04 0.00
7 Thu 7/1/04 Sat 7/31/04 0.00
8 Sun 8/1/04 Tue 8/31/04 0.00
9 Wed 9/1/04 Thu 9/30/04 0.00
10 Fri 10/1/04 Sun 10/31/04 0.00
Shift Dates
Forward
Backward
1
Month(s)
Copy Values and Dates to Clipboard
Copy Values to Clipboard
OK
Import Values from Clipboard
Cancel

The ability to copy the numbers to and from the clipboard can be a great time-saver and reduces errors.

Copy and paste column text and numbers into other columns

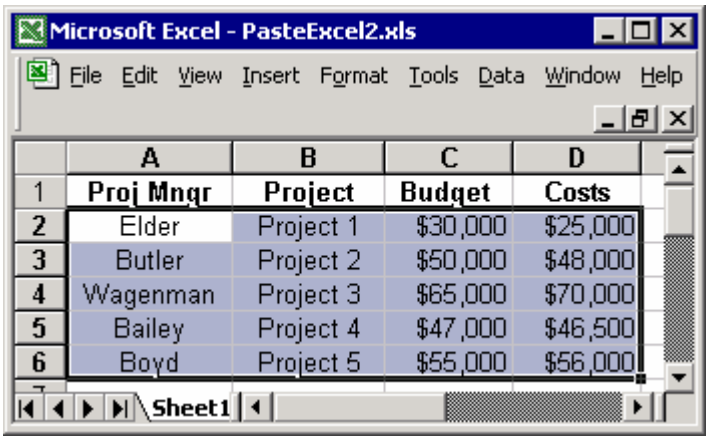
You can copy an entire Milestones column to the clipboard by first selecting the entire column and then selecting the **Edit** | **Copy Column Text**.

Once your column of text is on the clipboard, you can paste it into a spreadsheet, another Milestones column, or any program that allows columns to be pasted in from the clipboard.

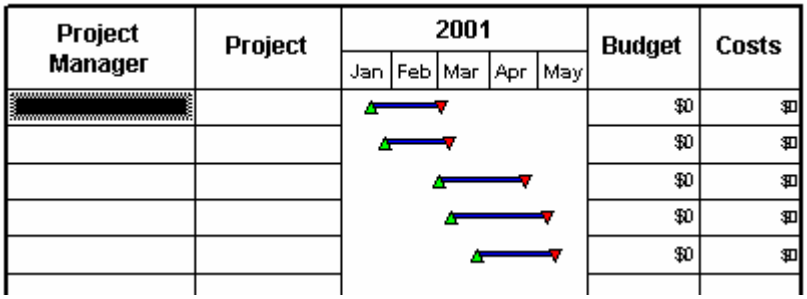
Paste Text and Values into Multiple Columns and Rows

As described earlier in this chapter, the *Custom Import* feature uses “column mapping” to populate the Milestones schedule. Here, you can paste cells from a spreadsheet directly into the Milestones column cells, across many rows.

1. In the other application, highlight and copy the cells, as shown below.


Microsoft Excel - PasteExcel2.xls
File Edit View Insert Format Tools Data Window Help
A B C D
1 Proj Mngr Project Budget Costs
2 Elder Project 1 $30,000 $25,000
3 Butler Project 2 $50,000 $48,000
4 Wagenman Project 3 $65,000 $70,000
5 Bailey Project 4 $47,000 $46,500
6 Boyd Project 5 $55,000 $56,000
Sheet1

2. In a Milestones schedule that is prepared to accept this specific data (i.e. the columns match the information in the spreadsheet), click the tool in the toolbox.
3. Click once in the cell that will “anchor” the pasted information—pause—then click again to highlight just that cell, as shown below. This cell is where the pasting of information will begin.



In this example, the Excel spreadsheet has 4 cells horizontally and 5 cells vertically.

These cells will paste into Milestones using that same pattern—4 cells across and 5 rows down.

4. In Milestones, choose **Edit** | **Paste Text into Cells**.

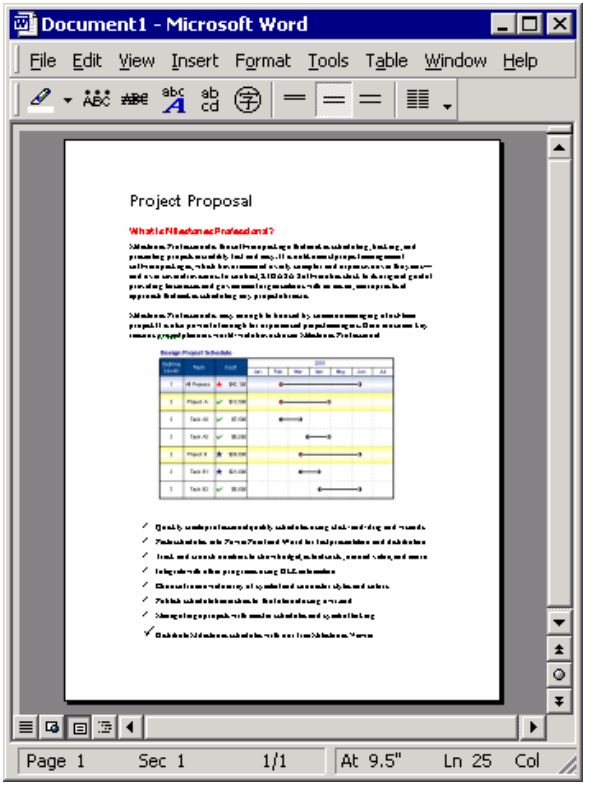
   The results for this example are below:

Project Manager	Project	2001					Budget	Costs
		Jan	Feb	Mar	Apr	May		
Elder	Project 1						$30,000	$25,000
Butler	Project 2						$50,000	$48,000
Wagenman	Project 3						$65,000	$70,000
Bailey	Project 4						$47,000	$46,500
Boyd	Project 5						$55,000	$56,000

You can also paste cells below existing column cells in Milestones.

Link and Embed Schedules in other Applications

Because Milestones Professional is an Object Linking and Embedding server, it is possible to paste entire schedules into other OLE compliant applications, such as the MS Office applications.


Document1 - Microsoft Word
File Edit View Insert Format Tools Table Window Help
Project Proposal
Page 1 Sec 1 1/1 At 9.5" Ln 25 Col

Once embedded or linked, you can launch the schedule from that application, by double-clicking the schedule.

Choose **Allow In-Place Activation** to edit the schedule from within the application in which the schedule resides. This settings is under **Tools** | **Options** | **General**.

This feature is not compatible with the sidebar.

Embed a schedule in another document

An embedded schedule becomes a part of the document in which it is embedded. The embedded schedule is not linked to the original source schedule—meaning a change in the source schedule does not equate to a change in the embedded schedule.

1. In Milestones, choose **Edit** | **Copy Schedule to Clipboard (OLE)**.
2. In your other Windows document (Word, Excel, or any other OLE application), click **Edit** | **Paste Special**. The document's **Paste Special** dialog box appears.
3. Choose **Paste** and **Milestones Professional Schedule Object** and then click **OK**.
4. Close the Milestones schedule used in Step 1, and then double-click on the embedded schedule.
    - If you had **Allow In-Place Activation** checked, then the schedule can be edited within the document. Otherwise, the schedule opens in Milestones.
    - If you make changes to the embedded schedule, then those changes will be retained in the embedded schedule (not the source file) when the schedule is closed.

Link a schedule into another document

When a Milestones schedule is inserted into a document as a "linked object," a connection is maintained between the source schedule and the inserted schedule—meaning a change in the source schedule equates to a change in the schedule that was inserted in the document.

1. In your Windows document (Word, Excel, or any other OLE application), click **Insert** | **Object**.
2. Under the **Create New** tab, scroll down the **Object type** list, and choose **Milestones Professional Schedule**.
3. Under the **Create from File** tab, click the **Browse** button.
4. Locate the schedule, click once on it, and then click the **Insert** button.
5. **Link to file** and then **OK**. [Go to Step 9.]

-or-

6. In Milestones, choose **Edit** | **Copy Schedule to Clipboard (OLE)**.
7. In your other Windows document (Word, Excel, or any other OLE application), click **Edit** | **Paste Special**. The document's **Paste Special** dialog box appears.

8. Choose **Paste Link** and **Milestones Professional Schedule Object** and then click **OK**.
9. Double-click on the linked schedule.
    - The schedule will open within Milestones—unless you have **Allow In-Place Activation** checked, under **Tools** | **Options** | **General**, then the schedule can be edited within the document.
    - Changes to the source schedule will appear in the linked schedule.

Is linking or embedding the best approach?

Use linking if you want to automatically update the linked schedule in the destination document when the schedule is updated. Linking is the best approach if you need to maintain the schedule separately from the document you are including it in. Remember, however, that if you move a document containing links to other objects from your computer to another computer, you will need to re-link any linked documents.

Embedding is a better choice if you want to keep your document portable.

If different pages of the schedule need to be displayed in another document, then use neither linking nor embedding—instead paste each schedule page as a picture, as described in the following section.

Paste a Picture of the Schedule into another Application

When you only need a static image of the schedule, generate a metafile (enhanced picture) of the schedule and paste it into another application.

Compared to linking/embedding, metafiles take up less space in the other application's file, since just the picture is pasted and not the entire Milestones file.

Further, linking and embedding do not support including different Milestones schedule pages in the other application.

1. Open Milestones and the application in which the metafiles will be pasted.
2. In Milestones, choose **Edit** | **Copy Metafile to Clipboard**.
3. Click **OK** when the **Metafile is on the Clipboard** message appears.
4. In the other application (Word, Excel, etc.), choose **Edit** | **Paste Special**.
5. Choose **Picture (Enhanced Metafile)**, and then **OK**.
6. Resize the schedule graphic by clicking and dragging the image's corners and edges.
7. Repeat for other schedule pages in Milestones.

Automation

The automation interface, built into Milestones Professional, lets you use programs written in Visual Basic, or any other language that supports automation, to interchange data programmatically between Milestones Professional and other automation capable applications, such as Microsoft Project, Access, Excel, and more.

The automation-based MS Project feature was done using Visual Basic. The use of automation-based interfaces enables the interface to be much more dynamic and flexible than a file-based interface such as CSV or MPX.

For example, the following Visual Basic program would start Milestones, add some symbols, save the schedule, and then exit:

```
Public Sub Example1()
Set objMilestones = CreateObject("Milestones")
With objMilestones
        'Start Milestones
        .Activate
        'Set Schedule start and end dates
        .SetStartDate "3/1/2005"
        .SetEndDate "6/30/2005"
        'Add task 1 (single milestone)
        .PutCell 1, 1, "Task 1"
        .AddSymbol 1, "4/14/2005", 2
        'Add task 2 (by adding two symbols)
        .PutCell 2, 1, "Task 2"
        'first symbol is connected to second on this task
        .AddSymbol 2, "4/20/2005", 2, 1, 2
        .AddSymbol 2, "6/15/2005"
        'Add task 3
        .PutCell 3, 1, "Task 3"
        .AddTaskUsingDuration 3, "4/15/05", 1, 1, 0, 2, 15, "Days"
        nFileHandleVariant = 0
        nFileHandleVariant = .Save
        nFileHandleInt = nFileHandleVariant
        If (nFileHandleInt = 0) Then
                MsgBox "File Save Failed"
        End If
        .Refresh
        End With
Exit Sub
End Sub
```

Complete documentation of all the methods and properties supported by this interface, as well as program examples, are given in the *Automation Help* option of the Milestones Professional *Help* menu.

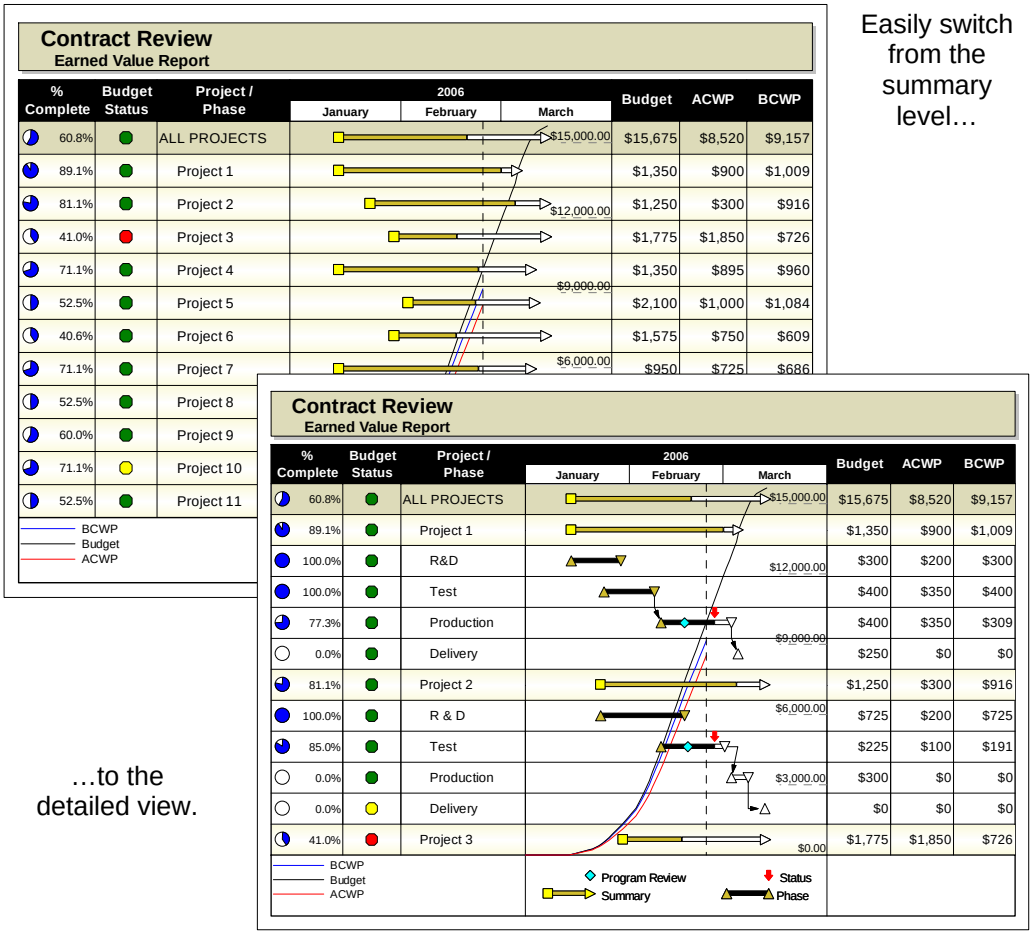
Chapter 12: Custom Formatting for Presentation

One of the key strengths of Milestones Professional is its excellent customization and presentation capability. Virtually every aspect of your schedule, from background colors, shading patterns, special fading effects, symbol and bar colors, to chart size can be customized.

Apply features such as templates, expand/collapse, color themes, and more to quickly change the look and the view of the schedule.

In a single Milestones schedule, you can track the details of multiple projects, then present a high-level, presentation-ready view for company executives.

In the schedules below, both the expanded and summary view are displayed:



Easily switch from the summary level…

…to the detailed view.

Charts and Templates

Templates retain the formatting (the "look" of a chart) while *charts* preserve schedule details (such as task names, dates, value entries, etc.) and the schedule format.

You can overlay a blank schedule (a chart) with a template and then fill-in the schedule data, or overlay an existing chart with a template.

Standard Templates come with the software and can be applied at any time, even while using the *Milestones Professional Setup Wizard* (under the menu *File* | *New*) for generating a new schedule.

Personal Templates are user-created, saved, and then applied to charts.

When saving a file as a Personal Template or Standard Template, these elements of the schedule *are saved* with the template:

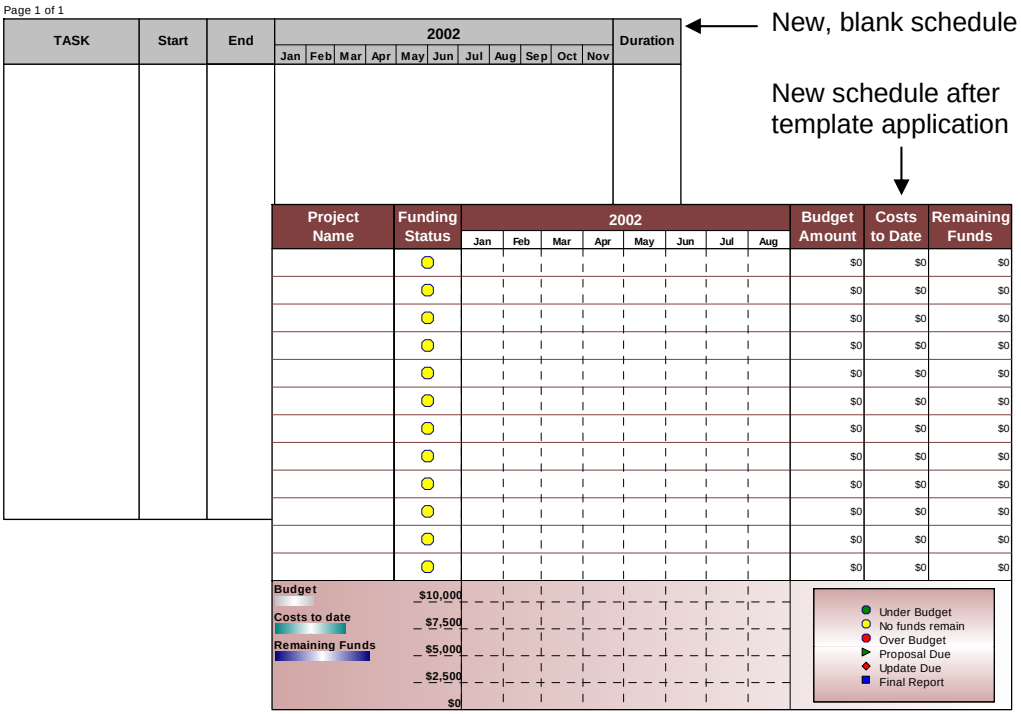
- The schedule layout - chart size, margins, column widths, legend height, lines per page
- Background color, frame and shadow
- Calendar icons in date SmartColumns
- Chart title text format and background format (but not the chart title text)
- Column headings and SmartColumn settings
- *Column Text Containing* filters which were saved
- Current date line and text display
- DataGraph and ValueSet formatting
- Date headings and all timescale settings
- Date sensitivity options
- Default symbol size
- Default text styles
- Dependency mode setting
- Embedded graphics
- Gridline settings
- Legend entries and legend format
- Month and weekday name overrides
- *Multi-Column Sort* names which were saved
- *Override Symbol Date and Text Display* options
- Page number display
- Status line display toggle and properties
- Symbol date format
- Toolbox settings, including the size of the toolbox, and the symbols and connectors used
- View modes: Gantt, Calendar, Duration, Percent Complete

When saving a file as a Personal Template or Standard Template, these elements of the schedule *are NOT saved* with the template:

- Bars and lines in the DataGraph
- Bookmarks
- Freeform text
- Graphics files that are not embedded
- Hidden menu items (this is a global setting applied to all schedules)
- Lines, circles or boxes drawn with the drawing tools
- Number and currency formats
- Schedule title
- Sidebar and toolbar shortcut button list (this is a global setting applied to all schedules)
- Symbols and connectors on the schedule
- Task names on the schedule and any text entered into columns
- Values in the ValueSets

Format a blank schedule with a selected template

Click to open a blank schedule. Choose **File** | **Open** | **Personal Template** or **Standard Template**. Double-click on the file name of the template you want to open (an .MTP file).



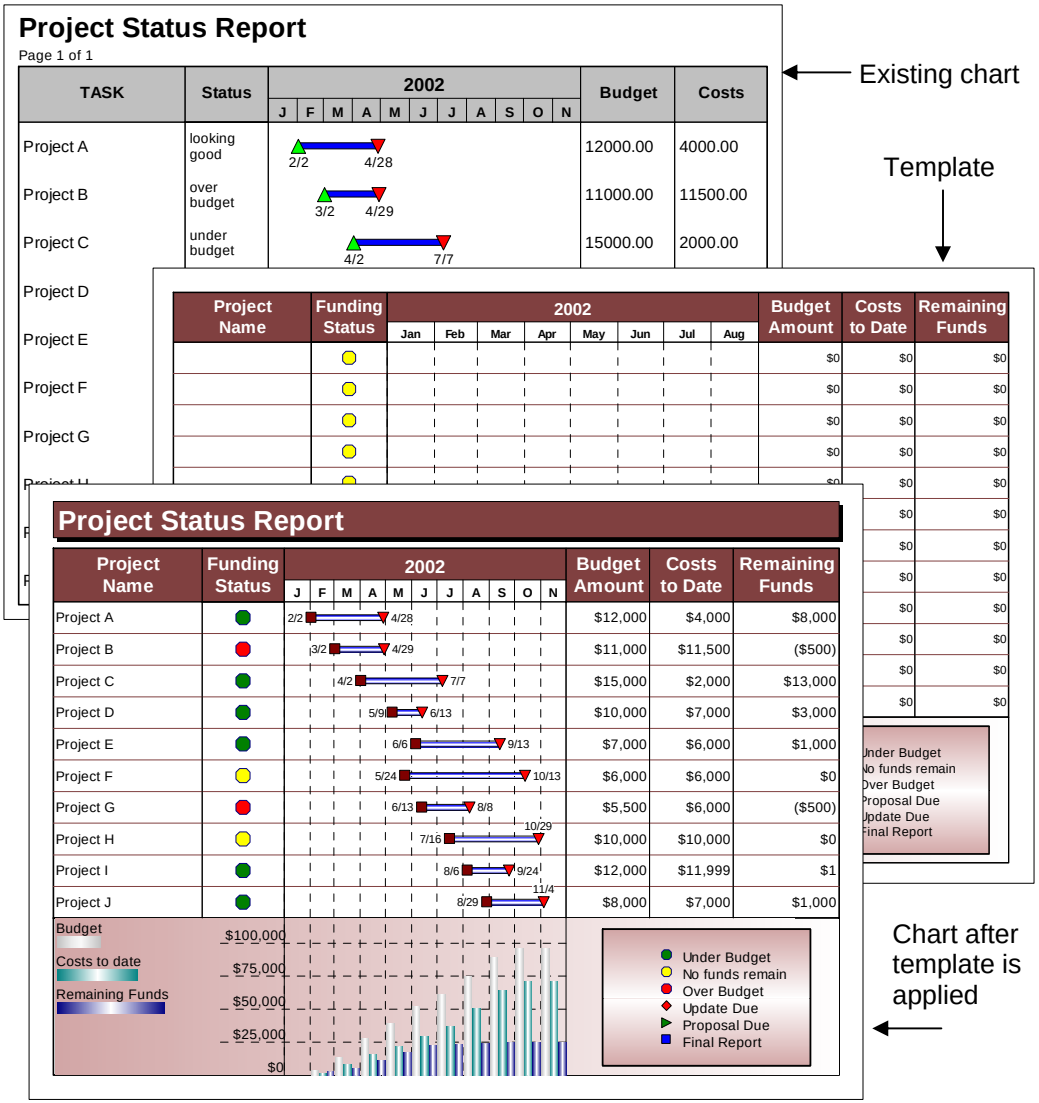
Custom Formatting for Presentation 12-3

Format an existing schedule with a selected template

Open an existing schedule. Then open a template that instantly formats the schedule!

The columns in the existing schedule should match the column arrangement and column types in the template, as shown in the example below. Exception: The template can have extra columns positioned at the far right or left, as shown by the "Remaining Funds" column in the template below.

The template's symbols replace those of the original schedule, according to their positions in the toolbox.



To format an existing schedule (chart) with a template:

1. Open your schedule if it is not already open.
2. Choose **File** | **Open** | **Personal Template** or **Standard Template**.
3. Locate the template (MTP file) that you want.
4. Click on the file name, and then click **Open**.

Setup Wizard templates

When starting a new schedule using the Milestones Setup Wizard, choose from dozens of ready-to-go schedule templates.

1. Choose **File** | **New**.
2. ⊙ **Select Predesigned Template**
3. Under **Template Category**, choose a category—each has its own set of templates.
4. Under **Templates in current template folder**, select a template.
5. Choose **Next**, then enter a schedule title.
6. Choose **Next**, then select a schedule start date.
7. Click **Finish**.

Most templates have basic instructions on how to use the schedule.

Templates are categorized by industry and common usage. Here is a sampling of those categories—

- Baseline Schedules
- Basic Gantt
- Budget Tracking
- Earned Value
- Events Tracking
- Project Presentations
- Resources
- Stoplights
- Track Status
- Aerospace & Defense
- Architecture & Construction
- Business & Finance
- Education & Training
- Engineering
- Government
- Manufacturing & Production
- Sales & Marketing
- Technology

Create and save a template

Open a blank schedule and format it—see the beginning of this section for schedule areas whose format is retained by a template.

Or, open an existing schedule that is already formatted to your liking.

1. Chose **File** | **Save As** | **Personal Template**.
2. Enter a template name in the field labeled **File Name**.
3. If you wish to use this template as the default, name the template **default.mtp**.
4. Click **Save**.

If the template was saved as default.mtp, when you click the *New File* icon , the new default template will appear.

Patterns and Gradient Fills

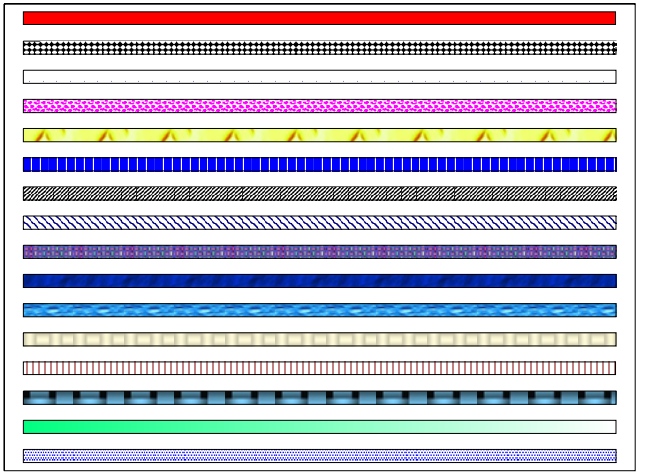
Patterns

In addition to the many symbol and connector shapes, you can also fill the symbols and connectors with a wide variety of colors and patterns.

This sample shows some of the patterns for horizontal connectors and curtains:

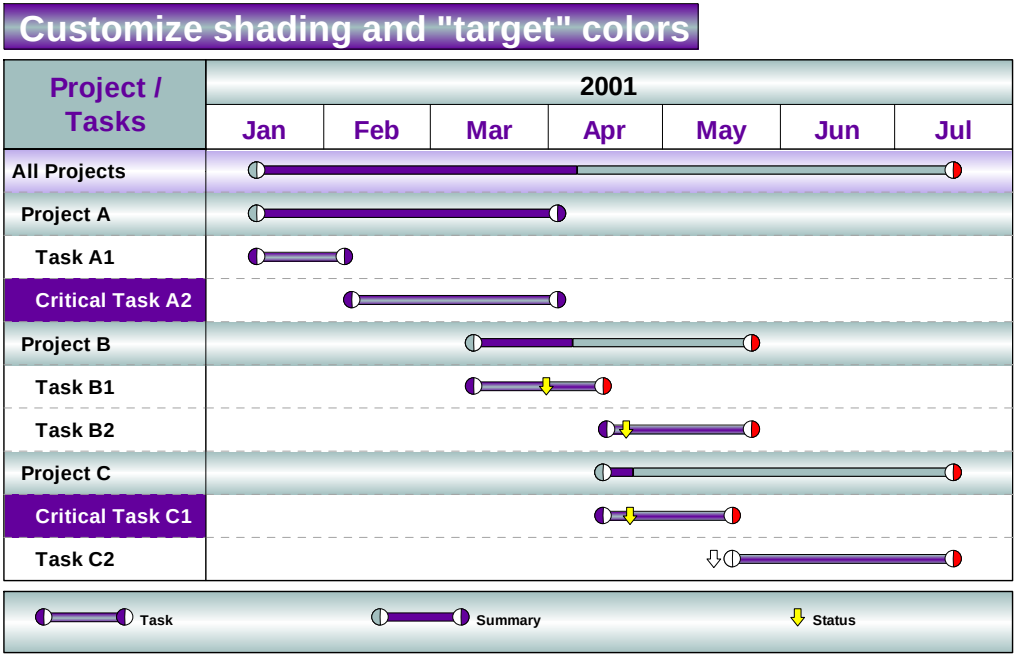
Marbled fill patterns are full-colored bitmaps which will ignore any color fill settings.

Use of marbled fill patterns increases the size of printer files and metafiles, especially on high-resolution printers. Thus, printing time may be increased.



Gradient fills

Gradient fills allow you to fade the background or fill color from one color to a “target” color, in many directions (to top, bottom, center, and more). These “special effects” can be chosen for many parts of your schedule, including connector bars, date headings, column headings, task shading, legends, DataGraphs, individual cells, and more, as shown below:



Task Shading, Gridlines, Text and Summary Formatting

Milestones offers many task line shading, gridline, text and summary bar formatting options, including:

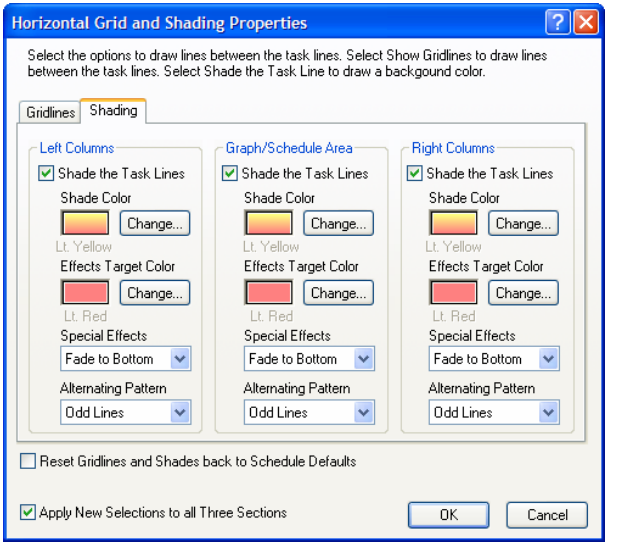
- Default shading and gridline settings for all/odd/even task lines
- Override individual shading and gridline settings for selected task lines
- Override shading, gridline, text and summary bar settings by outline level

Default gridlines and shading for all/odd/even task lines

Any outline level formatting options, as described later in this chapter, will override these default task shading and gridline selections. Therefore, you should use either these default settings or outline level settings.

Task line shading

1. Choose **Format** | **Gridlines, Shading, and Curtains** | **Horizontal**. The following dialog box appears:

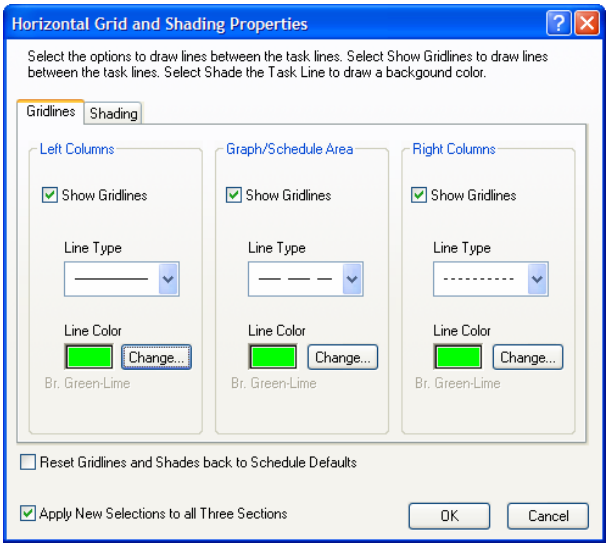


2. Click the **Shading** tab.
3. Under **Left Columns**, **Shade the Task Lines** to shade task lines to the left of the schedule area.
    - **Apply New Selections to all Three Sections** to quickly format all three areas of the schedule—*Left Columns*, *Graph/Schedule Area* and *Right Columns*. Any choice in one section is applied to the other two sections.

4. Under **Shade Color**, click the **Change** button and select a background color.
5. Under **Effects Target Color**, click the **Change** button and select a target color that the color choice in Step 4 will fade into.
6. To implement the target color, choose a **Special Effects** fading option.
7. Under **Alternating Pattern**, choose to shade only **Odd Lines** or **Even Lines**.

Horizontal gridlines between task lines

8. Click the **Gridlines** tab.



9. Under **Left Columns**, **Show Gridlines** to display gridlines between tasks.
    - **Apply New Selections to all Three Sections** to quickly format all three areas of the schedule—*Left Columns*, *Graph/Schedule Area* and *Right Columns*. Any choice in one section is applied to the other two sections.
10. Under **Line Type**, choose a gridline pattern.
11. Under **Line Color**, click the **Change** button and choose a gridline color.
12. Click **OK** to apply the selections.

If you **Reset Gridline and Shades back to Schedule Defaults**, then all settings will be cleared.

Gridlines and shading for selected task lines

You can set the gridlines and shading options for specific task lines. Regarding the gridlines, the settings will apply to the gridline at the bottom of the selected task row.

1. Click the arrow tool in the toolbox.
2. While holding the **Ctrl** key, click once on the appropriate task lines (click in the column area). Use the **Shift** key to select a range of task lines.
3. Choose **Format** | **Gridline/Shade for Selected Task**.
    - A message may appear that requires you to turn-off **Automatically Apply Outline Level…** before you can set gridline and shading options for selected tasks. To have the software do this for you, click **Yes**.
4. Make gridline and shading selections as described in the previous section.

Apply only to visible tasks: Check this option if there are hidden task lines, as found in a filtered or rolled-up schedule. When using the *Shift* key to select contiguous task rows for formatting, non-visible task rows will also be formatted unless this option is checked.

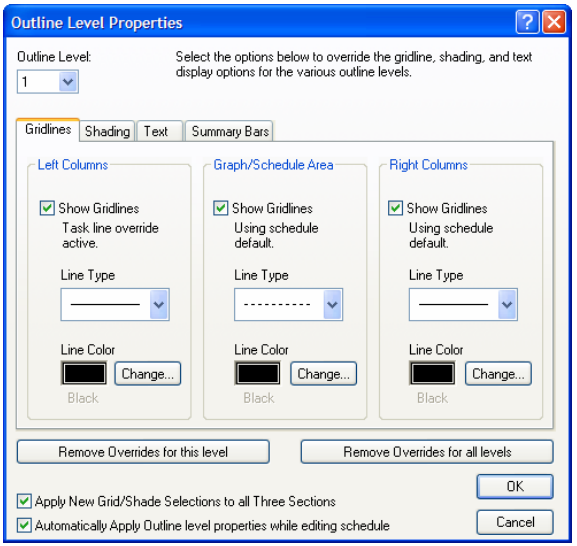
Outline level settings for gridlines, shading, text, and summary bars

Each outline level can have its own task line background shading, gridlines, text and summary bar formatting. Your settings can be automatically applied as you outline each task line and add new task lines. These settings override any default settings and individual task line settings.

1. Choose **Format** | **Set Outline Level Properties**.
    - **Apply New Grid/Shade Selections to all Three Sections** to quickly format all three areas of the schedule—*Left Columns*, *Graph/Schedule Area* and *Right Columns*. Any choice in one section is applied to the other two sections.
    - **Automatically Apply Outline level properties while editing schedule** to have these settings automatically appear as you work with your schedule.
    - **Remove Overrides for this level**: Clears all gridlines, shading, text and summary bar settings for the selected outline level.
    - **Remove Overrides for all levels**: Clears all gridlines, shading, text, and summary bar settings for all outline levels.
2. From the drop-down menu , choose the **Outline Level** that you will be formatting. After making selections for this outline level, choose another outline level.

Gridlines tab:

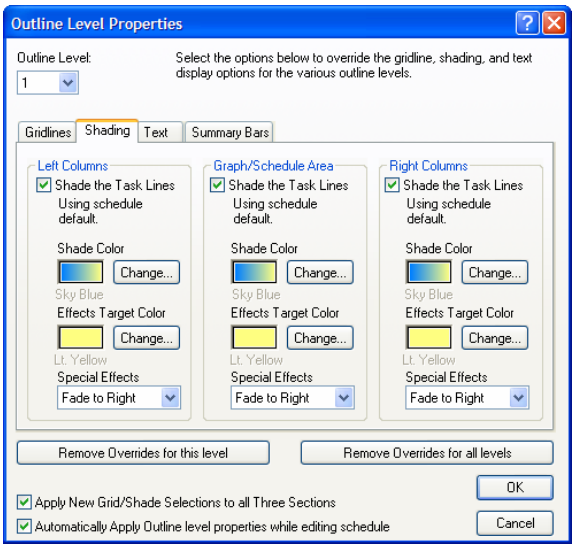
1. Under **Left Columns**, click once on **Show Gridlines** to turn-off the default settings.
2. Click again to **Show Gridlines**, or leave as to hide gridlines.
3. Choose a **Line Type**.
4. Under **Line Color**, click **Change** and choose a color.
5. Repeat for **Graph/Schedule Area** and **Right Columns**.



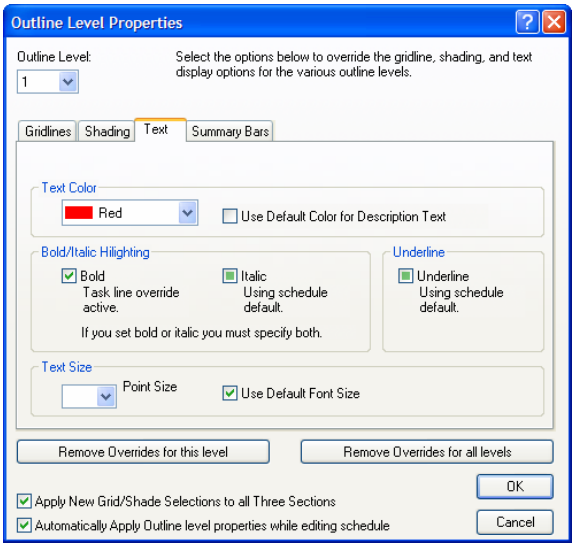
Gridline settings apply to the task line's lower gridline border.

Shading tab:

1. Under **Left Columns**, click once on **Shade the Task Lines** to turn-off the default settings.
2. Click again to **Shade the Task lines**, or leave as .
3. Under **Shade Color**, click **Change** and choose a color.
4. Under **Effects Target Color**, click **Change** and choose a color that the *Shade Color* will fade into.
5. Under **Special Effects**, choose a fade setting for the two colors.
6. Repeat for **Graph/Schedule Area** and **Right Columns**.



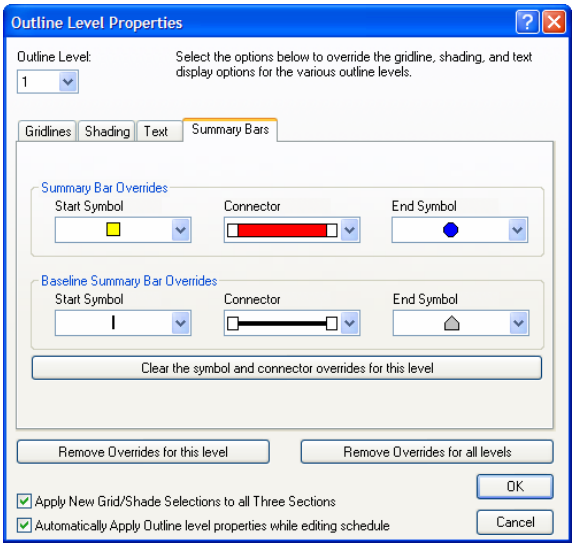
Text tab:



1. Choose a **Text Color** for the text in the columns (not the schedule area).
2. Under **Bold/Italic** and **Underline**, click once on **Bold**, **Italic**, and/or **Underline** to turn-off the default settings.
3. Click again on any of these to **Bold**, **Italic**, and/or **Underline**, or leave as .

   Note that if *Bold* is or , then *Italics* must have the same setting or be set to *Using schedule default*. For example, you cannot set Bold to and Italics to .
4. Choose a **Text Size**.

Summary Bars tab:



1. Under **Summary Bar Overrides**, choose a summary bar **Start Symbol**, **Connector** and **End Symbol** for this outline level.
2. Set baseline summary symbology under **Baseline Summary Bar Overrides**. This does not change the selected symbols to Baseline in the toolbox.
3. Click **Clear the symbol and connector overrides for this level** to clear only the settings under the **Summary Bar** tab.

The outline level summary bar settings override the default summary bar settings (*Format* | *Summary Bar Settings* and *Baseline Setup*).

Column and Column Heading Shading and Text

Set the shading and text properties for the columns and column headings.

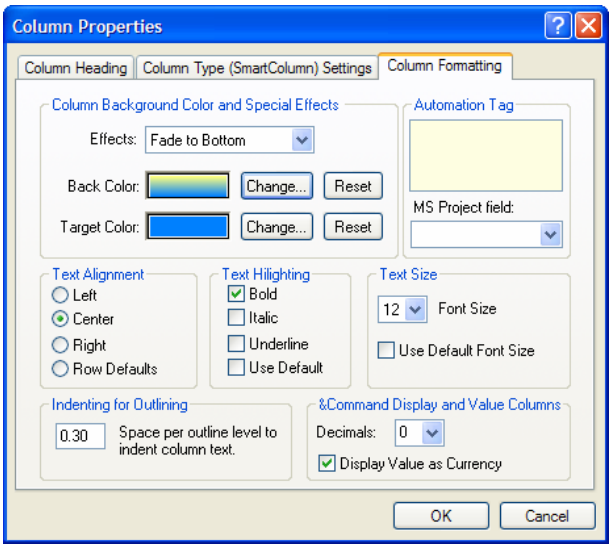
Each time a subsequent column heading is accessed, Milestones will display the most recent column heading tab used.

Column text and shading

Change the default setting for text and values displayed in all columns (not column heading text) under **Format** | **Default Text Styles** | **Column Text**.

Here is how to override the default column text setting for an individual column:

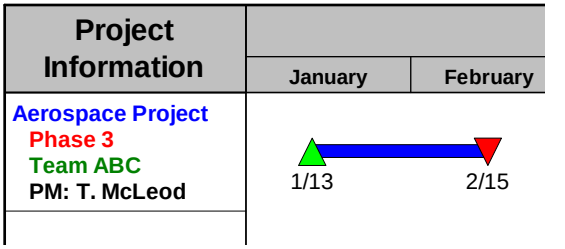
1. Double-click the column heading whose column properties you wish to change.
2. Click the **Column Formatting** tab.
3. Under **Column Background Color…**, choose **Effects** for color fading from the *Back Color* to the *Target Color*.
4. For both **Back Color** and **Target Color**, click the **Change** button and choose a color.
5. Make selections for **Text Alignment**, **Hilighting** and **Size** to override the defaults.



6. Under **Indenting for Outlining**, enter a value in inches to indent the text by outline level.
7. Under **&Command Display and Value Columns**, choose the number of **Decimals** that will display for numbers in a SmartColumn.
8. **Display Value as Currency** to add a currency sign to values in the column.
    - The currency symbol is controlled under **Format** | **International** | **Currency Format**. See Chapter 14 for more about displaying numbers.

Column text color override for individual column cell

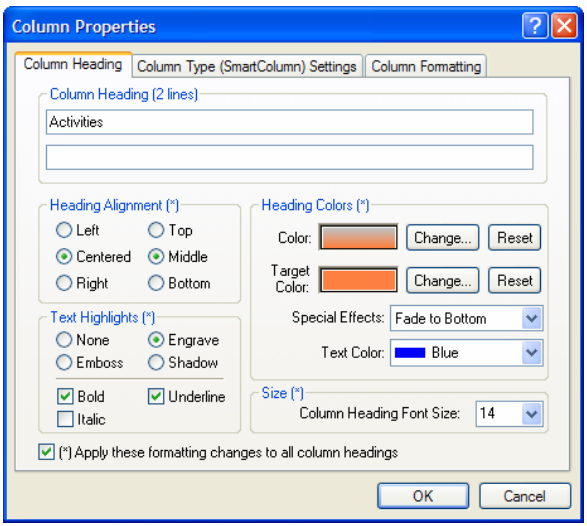
Text in column cells can be formatted for a specified color, on a line-by-line basis, for the first five lines in the cell.



1. Click the arrow tool in the toolbox.
2. Double-click a column cell.
3. Choose **Press to set Line by Line Text Color Overrides**.
4. For each of the first five lines of text in the column cell, choose an override color.
5. Choose **OK** and **OK** to return to the schedule.

Column heading text and shading

1. Double-click the column heading whose properties you wish to change.
2. Click the **Column Heading** tab.
3. Enter up to two lines of text.
4. Make selections for **Heading Alignment**, **Text Highlights**, and **Bold**, **Underline**, and/or **Italic** for the heading text.
5. Under **Heading Colors**, click **Change** next to **Color** and choose a color.
6. Next to **Target Color**, choose **Change** and select a color.
7. If you choose a **Special Effects** for fading, the *Color* selection fades into the *Target Color*.
8. Choose a **Text Color**.
9. Select a **Size** for the column heading text.
10. **(*) Apply these formatting changes to all column headings** to apply all settings marked with an (*) in this dialog box to all other column headings.



Vertical Gridlines

Vertical gridlines are aligned along time boundaries (years, fiscal years, quarters, months, weeks, days, hours, minutes, and custom headings) and extend from the date heading to the bottom of the schedule.

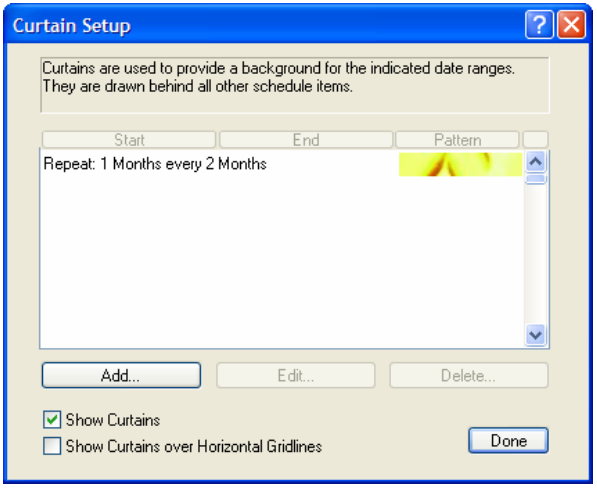
1. Choose **Format** | **Gridlines, Shading, and Curtains** | **Vertical**.
2. Check the gridline boundaries to display.
3. Choose a **Frequency**. For example, *Monthly* and a *Frequency* of *2* display a vertical gridline between every two months.
4. Choose a **Line Type** and a **Line Color**.
5. **Extend Vertical Gridlines…** to display the gridline settings in the DataGraph area.

Vertical Shading—Curtains

Curtains are a way of highlighting a date range with a background color or a pattern. A single pattern can be repeated at a chosen interval. Each schedule can have multiple curtains with varying colors and patterns.

Add, edit or delete curtains

1. Choose **Format** | **Gridlines, Shading, and Curtains** | **Curtains** to view the **Curtain Setup** dialog box, listing any existing curtains.
2. Click the **Add** button to add a curtain.
3. Select an existing curtain to **Edit** or **Delete** it.



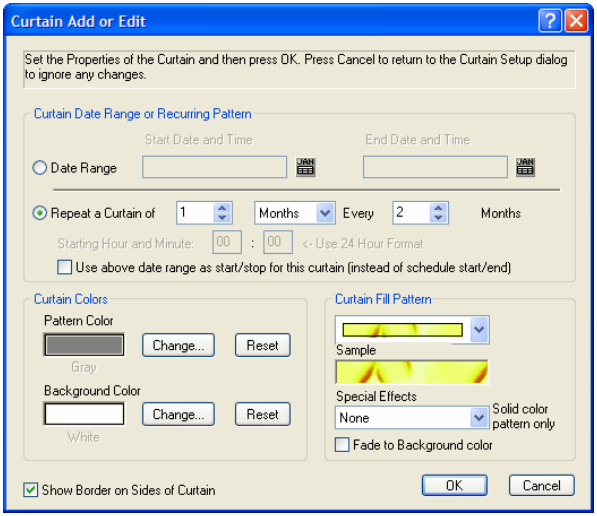
The **Curtain Add or Edit** dialog box appears:

Under **Curtain Date Range or Recurring Pattern** there are several options:

Date Range allows you to specify the time span that the curtain covers.

Repeat a Curtain of allows you to choose a time interval for the curtain to appear and reappear within a date range.

Use above date range… allows you to apply the **Repeat a Curtain of** selection within the **Date Range** dates, instead of the schedule's start and end dates.



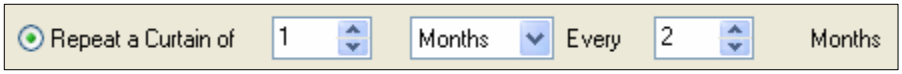
For the curtain to appear across a specified date range:

1. **Date Range**.
2. Enter a **Start Date and Time** and an **End Date and Time**; or click the calendar icon to choose dates.
3. Choose a **Pattern Color**, **Background Color**, **Curtain Fill Pattern**, and **Special Effects**.
   - Marbled fill patterns ignore the color selections and special effects. Use of these fill patterns increases the size of printer files and metafiles.
   - If the first pattern is selected in the *Curtain Fill Pattern* drop-down list, optionally choose a *Special Effects* fade setting. The *Pattern Color* will fade to white, unless *Fade to Background Color* is checked, in which case the *Pattern Color* fades to the *Background Color*.
4. Click **OK**, and then **Done**.

For the curtain to repeat within a specified date range:

1. **Date Range**.
2. Enter a **Start Date and Time** and an **End Date and Time**; or click the calendar icon to choose dates.
3. **Repeat a Curtain of**, and make selections for duration and interval.

   In this example, a curtain will appear across one month, every two months (effectively, every other month will be shaded).

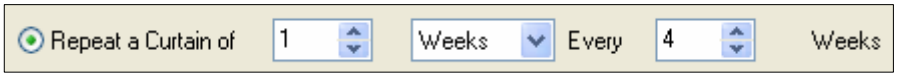


4. **Use above date range…** to repeat the curtain within the date range as set in Step 1 and 2.
5. Choose a **Pattern Color**, **Background Color**, **Curtain Fill Pattern**, and **Special Effects**.
6. Click **OK**, and then **Done**.

For the curtain to repeat within the schedule's start and end dates:

1. **Repeat a Curtain of**, and make selections for duration and interval.

   In this example, the duration is 1 week and the interval is every 4 weeks.



2. Choose a **Pattern Color**, **Background Color**, **Curtain Fill Pattern**, and **Special Effects**.
3. Click **OK**, and then **Done**.

To display the curtains over horizontal gridlines, check **Show Curtains over Horizontal Gridlines**.

Shift curtains

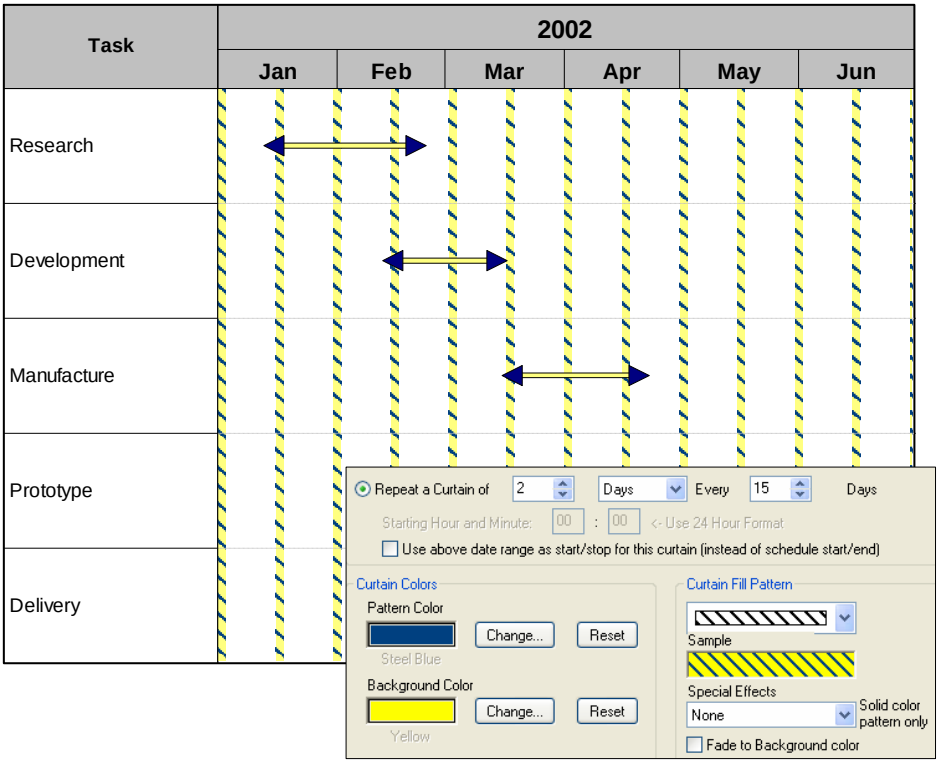
When shifting schedule dates under **Edit** | **Shift All Dates**, there is a **Shift Curtain Dates by the same amount** option.

Curtains example

In this example, the curtain is set to display over two days, beginning every 15 days.

A **Date Range** is not set, so the schedule's start date (1/1/2002) and end date (6/30/2002) are used.

Repeat a Curtain of 2 Days Every 15 Days is used.



Color Themes

Color themes set predefined background shading for most areas of the schedule -- task lines, chart title, date headings, columns, column headings, schedule background, legend, DataGraphs and toolbox symbol and connector colors.

Choose from more than 40 color themes or create your own, then apply the theme to a new or existing schedule for instant color formatting.

Color themes do not override column cell by cell settings. To reset all individual overrides made to column cell text color and size back to the schedule defaults, select any column, right-click and choose **Reset all Row and Cell Font/Color Overrides for all Columns**.

The *Apply a Color Theme* dialog will remember the last theme category used.

Not all built-in color themes carry color changes to the toolbox symbols and connectors.

All color themes created with previous versions of Milestones will not carry toolbox colors.

Create a color theme

Color themes which you save are listed in the *Personal Themes* and *All Themes* color theme categories.

1. Format your schedule's background shading for task lines, chart title, date headings, columns, column headings, legend, DataGraphs and toolbox symbol and connector colors. You may choose to create either outline level shading, gridline, and text formatting; or create default horizontal task line shading and gridline formatting.
2. After your schedule has the look that you want, choose **Format** | **Manage Color Themes**.
3. In the **Manage Color Themes** dialog box, enter a theme name.
4. Click **Save Theme**, and then click **Close** to exit.

Delete a color theme

1. Choose **Format** | **Manage Color Themes**.
2. Click on a name from the color theme list.
3. Click **Delete Selected Theme**.
4. Click **Close**.

Apply a color theme

A color theme can be applied to a new or existing Milestones schedule.

1. Choose **Format** | **Apply a Color Theme**.
2. Choose a color theme category. The **All Themes** category lists all available color themes.
3. Click on a color theme from the list, and see a preview of the theme as it applies to your schedule (click **Cancel** to return to the original schedule).
    - *Use Outline Level Shading from Theme*: Applies the color theme shading to all schedule areas and uses the outline level shading for task shading, which overrides all other shade settings.
    - *Use Default Schedule Shading from Theme*: Applies the color theme shading to all schedule areas and uses the default horizontal task line shading for task shading (either no shading or odd/even line shading), instead of the outline level shading.
    - *Do not alter Task Line Shading*: Applies the color theme shading to all schedule areas, yet retains the schedule's current outline level shading.
    - *No Task Line Shading*: Applies the color theme shading for all schedule areas, yet clears all task line shading. The schedule's background shading is displayed.
    - *Include Toolbox Colors*: Applies the color theme's toolbox colors to the existing toolbox.
4. Click **Cancel** to revert to the original schedule, OR click **OK** to accept the new color theme.

If your schedule’s task line shading should remain intact while applying the color theme, use these steps:

1. Choose **Format** | **Apply a Color Theme**.
2. First, choose ⊙ **Do not alter Task Line Shading** to use the color theme shading for all schedule areas, yet retain the task line shading that you previously set.
3. Click on a color theme from the list, and see the preview of the theme as it applies to your schedule.
4. Click **Cancel** to revert to the original schedule, OR click **OK** to accept the new color theme.

Chapter 13: Distribute and Present Schedules

Milestones Professional schedules can be presented and distributed in a wide variety of methods and formats:

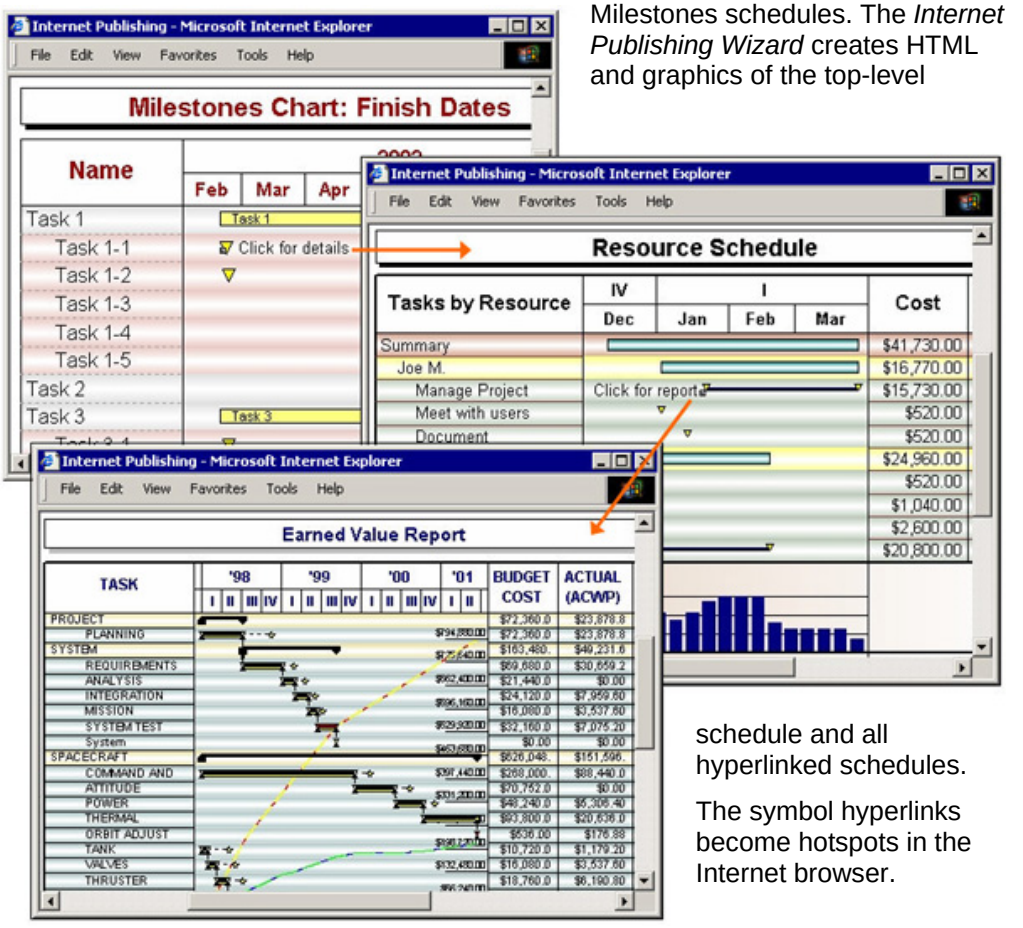
- Quickly transform a detailed, working schedule to a top-level presentation schedule using task roll-up (see Chapter 4) or applying a template (see Chapter 12).
- Print a wall-size schedule for viewing (see Chapter 7).
- Copy and paste a schedule to other Windows applications (see Chapter 11).
- Publish a complete hierarchy of schedules to the Internet or company Intranet.
- E-mail a Milestones schedule to a client or colleague, who can then use the free Milestones Viewer to open and print the schedule, along with other functionality, without allowing editing rights.
- Use Presentation Mode to professionally display your schedules in a slide-show format.
- Full Screen mode allows you to present and modify the schedule in a working meeting.
- Finally, using Microsoft's NetMeeting, you can collaborate over the Internet, and even turn-over control of the schedule to a meeting member.

Publishing for the Internet/Intranet

Milestones Professional's built-in *Internet Publishing Wizard* gives you several HTML and graphics output options:

- Create a picture of each page of the Milestones Professional schedule.
- Create a single HTML document that contains a picture of each page of the schedule, a table of schedule data, symbol notes, and more.
- Create a complete hierarchy of HTML documents from hyperlinked schedules. Symbol hyperlinks become hotspots in the HTML page.
- Create a tiered, interactive picture of the rolled-up schedule. Then click a task on the HTML page to drill-down for more details. Includes any hyperlinks from symbols to URLs and other non-Milestones files.

In this example, the top-level schedule "Milestones Chart" has symbol links to other Milestones schedules. The *Internet Publishing Wizard* creates HTML and graphics of the top-level schedule and all hyperlinked schedules.



The symbol hyperlinks become hotspots in the Internet browser.

Graphics Output/Bitmap Options for internet publishing

Some or all of these settings are available in the *Internet Publishing Wizard*. When applicable, refer to these suggestions and explanations for making optimal choices.

Create a Bitmap of each page: Generates a picture of each schedule page.

Include a Hyperlink Image Map: Creates a hotspot for each symbol that has a hyperlink. Up to nine hotspots are supported for any one symbol.

Bitmap Format for the graphics output: JPEG is usually the best choice if the image will be viewed with a browser. Not all browsers support BMP files. GIF is limited to only 256 colors, so any included bitmaps or gradient fills will degrade in quality. Most browsers support PNG (Portable Network Graphics) files; it is not limited to 256 colors; and is a good alternative to GIF. PNG files are about the same size as GIF files.

JPEG Compression factor: A factor from 10 to 99 (or none). The lower the JPEG Compression number you select, the smaller the file will be. However, the image quality will degrade accordingly.

I**mage Scale** ratio: Determines how large the resultant bitmap is. 1.0 is full size according to the page layout size. 0.5 is 50% of the page layout size.

Graphic File Name Starter: Adds a letter which prefixes all graphics file names, e.g. G0001.jpg.

Show Roll-up Indicators in Graphics Output: Displays an expand indicator next to tasks that have sub-task information hidden below them. If you do not check this feature, you can still click a task to see the sub-tasks.

Create a graphic only of each schedule page

With the *Internet Publishing Wizard*, create a picture (bitmap) of each page of the schedule.

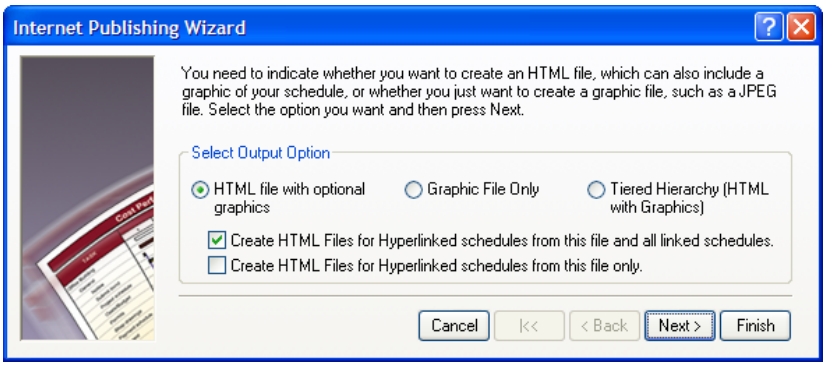
1. Choose **File** | **Internet Publishing**.
2. Choose **Graphic File Only**, then **Next**.
3. Select the **Graphic Output Options** (see the section above), then **Next**.
4. Choose **Browse** to find a folder for the output files, then **Next**.
5. Click **Finish**.

To save your schedule as a Metafile (.WMF or .EMF), choose *File* | *Export Graphics* | *Export Graphics Metafile*, then name the file and choose *Save*.

Create an HTML file with graphics and optional hyperlinks

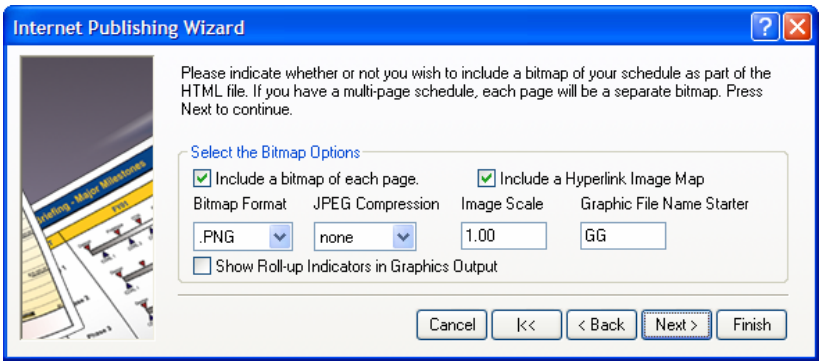
With the *Internet Publishing Wizard*, create a picture of each page of the schedule and display those graphics in a web page. Optionally, create HTML and graphics pages for schedules hyperlinked to symbols in that schedule. Those links become web page hotspots.

1. Choose **File** | **Internet Publishing**.


Internet Publishing Wizard
You need to indicate whether you want to create an HTML file, which can also include a graphic of your schedule, or whether you just want to create a graphic file, such as a JPEG file. Select the option you want and then press Next.
Select Output Option
HTML file with optional graphics
Graphic File Only
Tiered Hierarchy (HTML with Graphics)
Create HTML Files for Hyperlinked schedules from this file and all linked schedules.
Create HTML Files for Hyperlinked schedules from this file only.
Cancel
|<<
< Back
Next >
Finish

2. **HTML file with optional graphics**.
3. The two **Create HTML Files for Hyperlinked schedules** checkboxes enable you to specify how symbol hyperlinks are handled, as follows:
   - If neither box is checked, then no symbol hyperlinks are processed.
   - If you check the **first box**, then all hyperlinks are processed. If any refer to other Milestones schedules, then those schedules are called up, and each of those hyperlinks is processed, and so on, until the entire tree of hyperlinked schedules has been processed. Each schedule results in its own HTML file, created to hold the images (pages) of the schedule.
   - If the **second box** is checked, then just the hyperlinks for the current schedule are processed.
4. Choose **Next**.
5. Click **Change** to choose a **Background Color** for the HMTL page, then **Next**.
6. **Enter a Title** for the HTML page, then **Next**. For no title, just key an HTML command, such as <br>.

7. See *Graphics Output/Bitmap Options* on page 13-3 for choosing **Bitmap Options**.
    - *Graphic File Name Starter* is only used when you are creating an HTML page and images for just the current schedule. *Show Roll-up Indicators* option is ignored.


Internet Publishing Wizard
Please indicate whether or not you wish to include a bitmap of your schedule as part of the HTML file. If you have a multi-page schedule, each page will be a separate bitmap. Press Next to continue.
Select the Bitmap Options
Include a bitmap of each page.
Include a Hyperlink Image Map
Bitmap Format
JPEG Compression
Image Scale
Graphic File Name Starter
.PNG
none
1.00
GG
Show Roll-up Indicators in Graphics Output
Cancel
|<<
< Back
Next >
Finish

8. Choose **Next**.
9. Select from **Task Table Options** and then **Next**:
    - **Exclude Symbols from the Task Table** to not display symbol dates in the Task Table portion of the HTML file. The Task Table is a table of schedule data, with one row per task.
    - **Exclude Task Table from HTML File** to not display the entire Task Table in the HTML file.
    - In the Task Table, all symbol dates for a row are shown after the column text entries. For example, if you have Start and End Date SmartColumns, then you would probably check *exclude symbols*, since they would just repeat the dates from the SmartColumns.
10. **Select Additional Options** and then **Next**:
    - **Exclude File Name** to not display the name of the Milestones file in the HTML file.
    - **Exclude Start and End Date** to not display the schedule start and end date (as set under *Format* | *Dates* | *Schedule Details*) in the HTML file.
    - **Include Symbol Hyperlinks** to display a Task Table number next to the date of a symbol with a hyperlink to the appropriate file or URL. If you check this option, then you must also include the Task Table and Symbol dates from the previous dialog box.

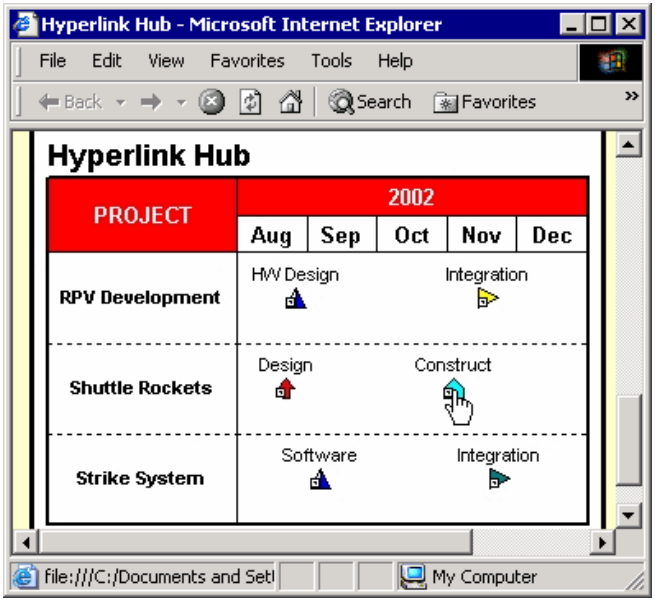
11. Choose **Browse** to select the file name and location for the HTML and graphics files. All other HTML files and graphic image files will be placed in the same folder.
    - Normally you would want to keep the HTML files and images for any one publishing session in a folder by themselves.
    - When you publish an entire tree of hyperlinked schedules and images, quite a few files can be produced. All references to files created by the wizard are relative to the folder that you choose. That is, no referenced file or image has a path in front of the filename. This makes it easy to move the contents of the entire folder to a web server.
    - HTML files or images created that are based upon filenames that have blanks, will have underscores where the blanks were. This is done because some browsers cannot handle blanks in filenames.
12. Choose **Next**.
13. Review your selections and press **Finish**.

When you do, the imaging and HTML process will begin. The Status Bar indicates the progress.

When the process is complete, a Message Box appears asking if you want to view the output.

If you press **Yes**, then your browser is started with the first HTML page created.

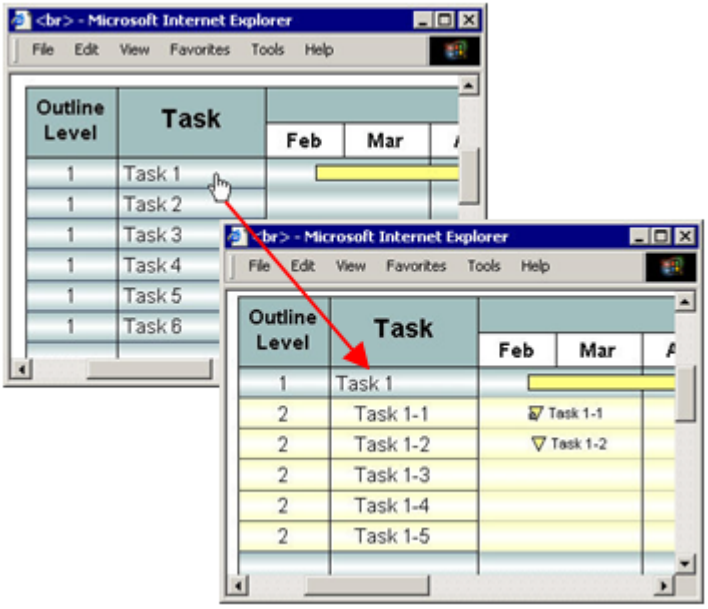
If a symbol on your schedule contained a hyperlink, which is now a hotspot in the HTML document, position the cursor over that symbol and notice that that cursor changes to the finger-pointer. The browser status bar shows the location of the referenced hyperlink.



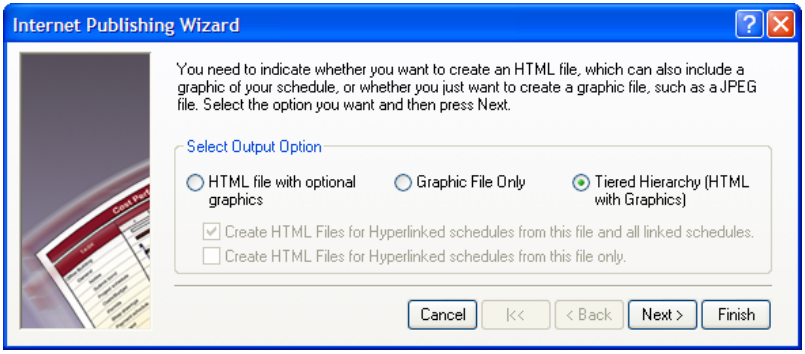
For symbols with multiple hyperlinks, move the cursor slightly when hovering over the symbol hotspot in the web page and see the different linked files in the Status Bar.

Tiered Hierarchy: Web drill-down with optional hyperlinks

Use the *Internet Publishing Wizard* to create an HTML document containing a graphic of an outlined schedule. On this picture of the schedule that displays in your browser, you can click an upper level task to reveal the lower-level details. Include any hyperlinks from symbols to URLs and other non-Milestones files.



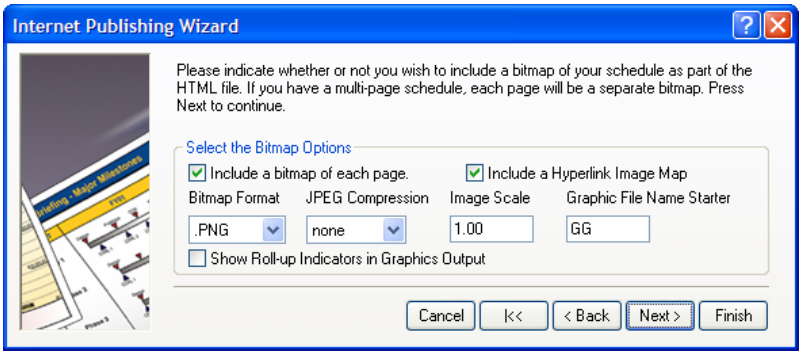
1. Choose **File** | **Internet Publishing**.


Internet Publishing Wizard
You need to indicate whether you want to create an HTML file, which can also include a graphic of your schedule, or whether you just want to create a graphic file, such as a JPEG file. Select the option you want and then press Next.
Select Output Option
HTML file with optional graphics
Graphic File Only
Tiered Hierarchy (HTML with Graphics)
Create HTML Files for Hyperlinked schedules from this file and all linked schedules.
Create HTML Files for Hyperlinked schedules from this file only.
Cancel
<<
< Back
Next >
Finish

2. ⊙ **Tiered Hierarchy (HTML with Graphics)**, then **Next**.
3. Click **Change** to choose a **Background Color** for the HMTL page, then **Next**.
4. **Enter a Title** for the HTML page, then **Next**. For no title, just key an HTML command, such as <br>.

5. See *Graphics Output/Bitmap Options* on page 13-3 for choosing **Bitmap Options**.

    - *Include a Hyperlink Image Map* will create a hotspot for each symbol that has a hyperlink to a URL or non-Milestones file. Hyperlinks to Milestones schedules are not processed.


Internet Publishing Wizard
Please indicate whether or not you wish to include a bitmap of your schedule as part of the HTML file. If you have a multi-page schedule, each page will be a separate bitmap. Press Next to continue.
Select the Bitmap Options
Include a bitmap of each page.
Include a Hyperlink Image Map
Bitmap Format
JPEG Compression
Image Scale
Graphic File Name Starter
.PNG
none
1.00
GG
Show Roll-up Indicators in Graphics Output
Cancel
|<<
< Back
Next >
Finish

6. Choose **Next**.
7. Choose **Browse** to select the file name and location for the HTML and graphics files. All other HTML files and graphic image files will be placed in the same folder.

    - It is highly recommended that you create a folder in which to place these numerous HTML and graphics files.
    - When you publish an entire tree of hyperlinked schedules and images, quite a few files can be produced. All references to files created by the wizard are relative to the folder that you choose. That is, no referenced file or image has a path in front of the filename. This makes it easy to move the contents of the entire folder to a web server.
    - HTML files or images created that are based upon filenames that have blanks, will have underscores where the blanks were. This is done because some browsers cannot handle blanks in filenames.

8. Choose **Next**.
9. Review your selections and press **Finish**.

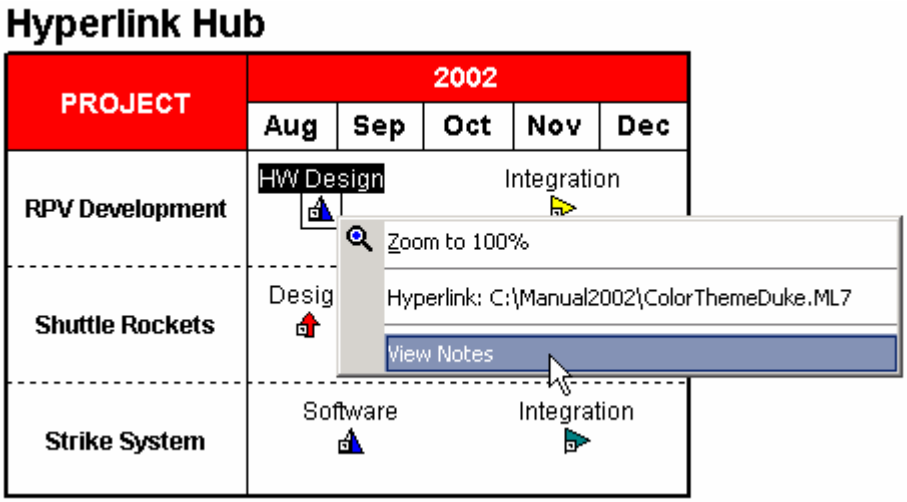
The HTML files and graphics files are named for each task's WBS number. For example, if you click on Task 3 to see Task 3's sub-tasks, the HTML file is named *3.1.HTML* and the picture of the schedule is *3.1.HTML0001.jpg*. The exception is the main, rolled-up HTML page and graphic, whose names come from the ML8 file name. For example, the Milestones Professional schedule *project.ML8* would result in the main HTML page *project.HTML* containing a schedule graphic *project.html001.jpg*.

Free Milestones Viewer

Using the free Milestones Viewer, your clients and co-workers can view Milestones schedules.

The free Viewer shares these features with Milestones Professional:

- Open a Milestones schedule.
- Full printing and preview options
- View symbol notes.
- Launch symbol hyperlinks.
- Copy a metafile of the schedule to the clipboard (then paste into another application).
- Complete task filtering options
- Tooltip and hover time control
- Target shared charts, holidays, and symbols folders for better collaboration.
- Zoom controls
- Calendar and Continuous view modes
- Find and Go To Page options



In the Viewer, schedules cannot be edited, nor can they be saved.

KIDASA is the only company that offers a free Viewer to go along with its project management software. Anyone in the world may use the free Viewer even if they do not have any copies of Milestones Professional.

Right-click a symbol to launch a hyperlink or view the symbol notes.

Set folder locations, tooltip options, color settings, and more under **File** | **Preferences**.

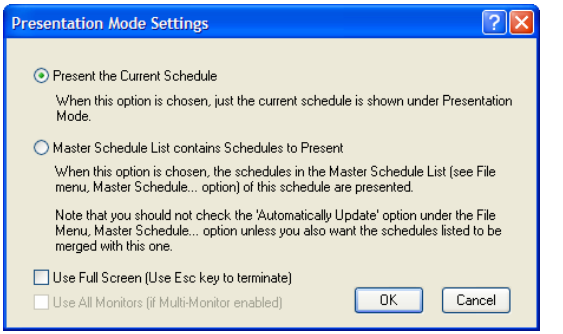
To Window-over to another schedule that is open in the Viewer, choose from other files listed at the bottom of the **File** menu.

Presentation Mode

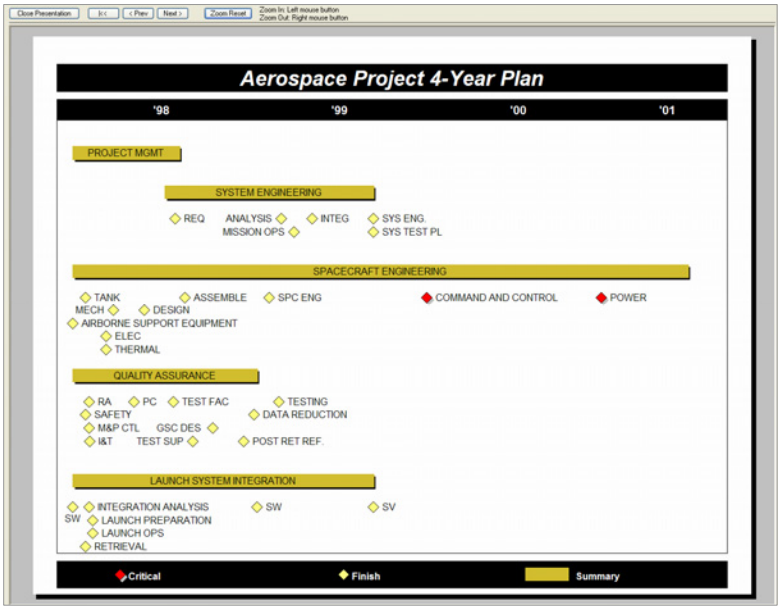
Use the Presentation view mode to present one or a series of separate Milestones schedules as a "slide show" with a full screen option and schedule manipulation controls.

Before using Presentation Mode, change your *File* | *Printing Options* setting to *Scale to Fit Selected Paper Size*. This ensures that the schedule pages will be scaled to fit the screen.

Present a single schedule


Presentation Mode Settings
Present the Current Schedule
When this option is chosen, just the current schedule is shown under Presentation Mode.
Master Schedule List contains Schedules to Present
When this option is chosen, the schedules in the Master Schedule List (see File menu, Master Schedule... option) of this schedule are presented.
Note that you should not check the 'Automatically Update' option under the File Menu, Master Schedule... option unless you also want the schedules listed to be merged with this one.
Use Full Screen (Use Esc key to terminate)
Use All Monitors (if Multi-Monitor enabled)
OK
Cancel

1. Choose **View** | **View Mode** | **Presentation Mode**.
2. Choose **Present the Current Schedule**.
3. With the **Use Full Screen** option, the Milestones schedule fills the entire screen, without any visible controls.
4. **Use All Monitors** if your computer has multiple monitors (the schedule will span all the monitors).
5. Click **Close Presentation** or press the **Esc** key to exit Full Screen and Presentation mode.



Present many schedules

To present multiple schedules, you need to first use the Master Scheduling option to input a list of schedules. Unlike the true Master Scheduling system, the presentation schedules' formatting does not have to be the same.

1. Click the new schedule icon .
2. Choose **File** | **Master Schedule**.
3. **Treat the Current Schedule as a Master Schedule**.
4. Click the **Add Schedule** button, find the schedule, and double-click to add it.
5. Repeat Step 4 to add more schedules to your presentation list.
6. Click **Move Up** or **Move Down** to rearrange the order of schedule presentation.
7. Click **Delete** to remove any schedules from the presentation list.
8. Click **OK**.
9. Choose **View** | **View Mode** | **Presentation Mode**.
10. Choose **Master Schedule List contains Schedules to Present**, then **OK**.

Presentation Mode controls

Manipulate the schedules while in Presentation Mode with these controls. On-screen buttons are not available with the Full Screen option.

Esc or **Close Presentation button**: exit Presentation Mode

Left Mouse Button: zoom in

Right Mouse Button: zoom out

Left/Right/Up/Down Arrow keys: scroll to the direction indicated when zoomed in

< Prev button: view previous page

Next > button: view next page

Zoom Reset button: return the zoom to fit-in-window

|<< button: exit Presentation Mode when only presenting one schedule; return to first schedule when presenting multiple schedules

Full Screen Mode

Do you have a schedule you need to present at a meeting? Do you need to make changes to the schedule "live" during the meeting? Full Screen mode displays your schedule at the largest size possible for your monitor, by eliminating the toolbar, status bar and menus. The sidebar and/or toolbox are available if needed, but can be hidden.

1. Choose **View** | **View Mode** | **Full Screen**, or press **Ctrl+F**.
2. Use the **Esc** key or **Ctrl+F** to exit full screen mode.

NetMeeting Collaboration

Microsoft's NetMeeting is a free, easy-to-use tool that allows anyone to share a Windows application over the Internet.

Using NetMeeting, you can present a Milestones schedule and even give control of the application to others.

NetMeeting collaboration is so valuable because no one else needs to have a copy of the software that is being viewed—only the host of the meeting needs a copy.

To launch a NetMeeting, choose **Tools** | **NetMeeting Sharing/Collaboration**.

NetMeeting must already be installed.

Follow NetMeeting guidelines for NetMeeting functionality.

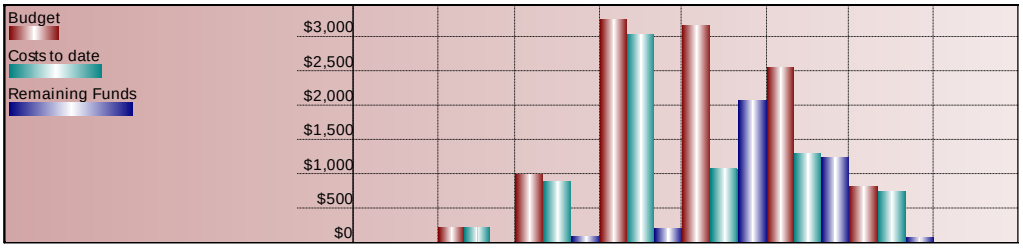
Chapter 14: Track and Graph Values

Milestones Professional offers many ways to enter, display, calculate and graph numbers such as budget, cost, earned value, manhours, and more.

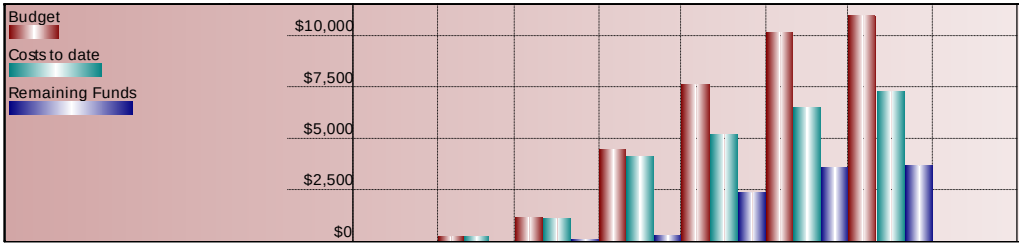
Milestones offers specialized columns for entering and calculating values; ValueSets for entering values in groups, such as "budget" or "manhours;" and three graph areas (DataGraphs) for displaying line and bar graphs of values.

Each of the three available DataGraphs can contain up to 8 sets of values (ValueSets).

A sample of a DataGraph with three ValueSets (“Budget,” “Costs to date” and “Remaining Funds”) is shown below:



You can also display values as cumulative. The same DataGraph above, with the same ValueSets with cumulative values, is shown below:



ValueSet SmartColumns sum and display values from specific ValueSets for each task row, with optional indicator symbols, text or colors:

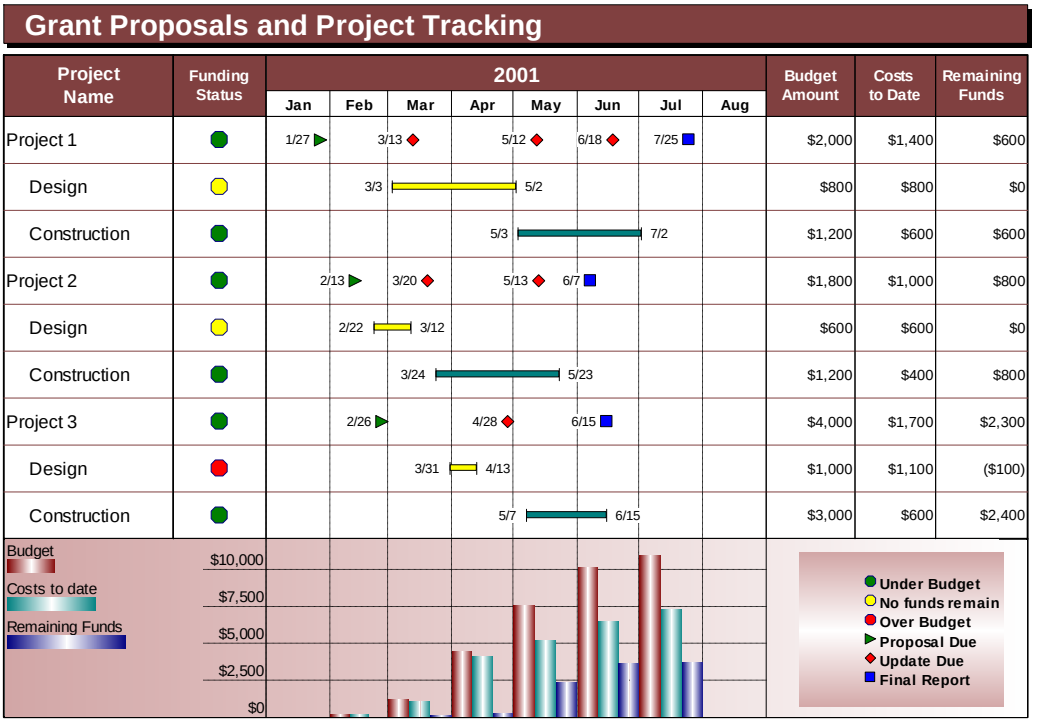
Project Name	Funding Status	2001								Budget Amount	Costs to Date	Remaining Funds
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug			
Project 1		1/27		3/13		5/12	6/18	7/25		$2,000	$1,400	$600
Design				3/3		5/2				$800	$800	$0
Construction						5/3		7/2		$1,200	$600	$600
Project 2			2/13		3/20		5/13	6/7		$1,800	$1,000	$800
Design				2/22		3/12				$600	$600	$0
Construction					3/24			5/23		$1,200	$400	$800

Generally, the overall process of entering and displaying values is as follows:

1. Create ValueSets that will contain values (e.g. “Budget”).
2. Enter values into those ValueSets (e.g. $200 for January’s budget; $450 for February; $350 for March; and so on).
3. Create a DataGraph that displays those values (e.g. a bar graph for each of the $200, $450 and $350 values for January, February and March, respectively).

The **DataGraph and ValueSet Wizard** (under the *Format* | *DataGraph* menu) takes you through the creation and display of these ValueSets and DataGraphs.

The instructions in the chapter by-pass the Wizard and show you how to directly create and edit ValueSets and DataGraphs.



ValueSets

ValueSets are user-defined categories (e.g. budget, man-hours, costs, etc.) that contain numbers ($400 in sales, 52 hours, 135 purchases, etc.) associated with a time period, such as days, weeks, months, quarters, or years. All of the ValueSets within any one schedule must use the same time period. For example, daily and weekly ValueSets cannot be combined in the same schedule.

Values from ValueSets can be graphed in one or more of the schedule's DataGraphs.

ValueSets are created and formatted under **Format** | **DataGraph** | **Set Up ValueSets**.

There are five different types of ValueSets available:

- **Type 1: Keyed-in Global Values**. Enter values by time period for the whole schedule—such as monthly budget values.
- **Type 2: Sum of Values Keyed into Task Lines**. Numbers are entered by time period for each task—such as separate monthly budget values for Task 1, Task 2, etc. When the schedule is outlined, only the lowest outline level tasks should receive values because entered values roll-up to upper level tasks.
- **Type 3: Allocate Column Values Across Timeline**. Values are entered into a column. The column value for each task is spread across the task's duration. Optionally, values can be allocated only to the current date, or allocated from the current date to the end of the task's time span. Also, the values can be allocated to the task's baseline time span.
- **Type 4: Use Values from Symbols**. Values can be attached to any symbol. Those values are graphed according to the time period in which each symbol resides.
- **Type 5: Total of other ValueSets**. Values from selected ValueSets are totaled and graphed, such as "Overhead Cost" ValueSet + "Labor Cost" ValueSet = "Total Cost" ValueSet.

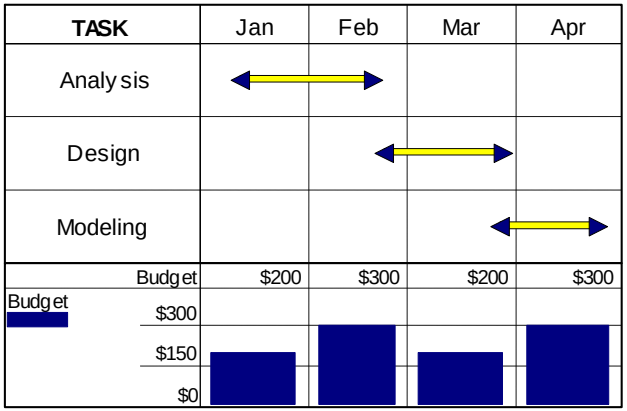
Any of the five different types can be used in the same schedule and placed in the same DataGraph. The chapter sections that follow describe each type of ValueSet in more detail.

For additional information consult the *Milestones Professional Help Topics* under the *Help* menu. Index keyword: "ValueSet."

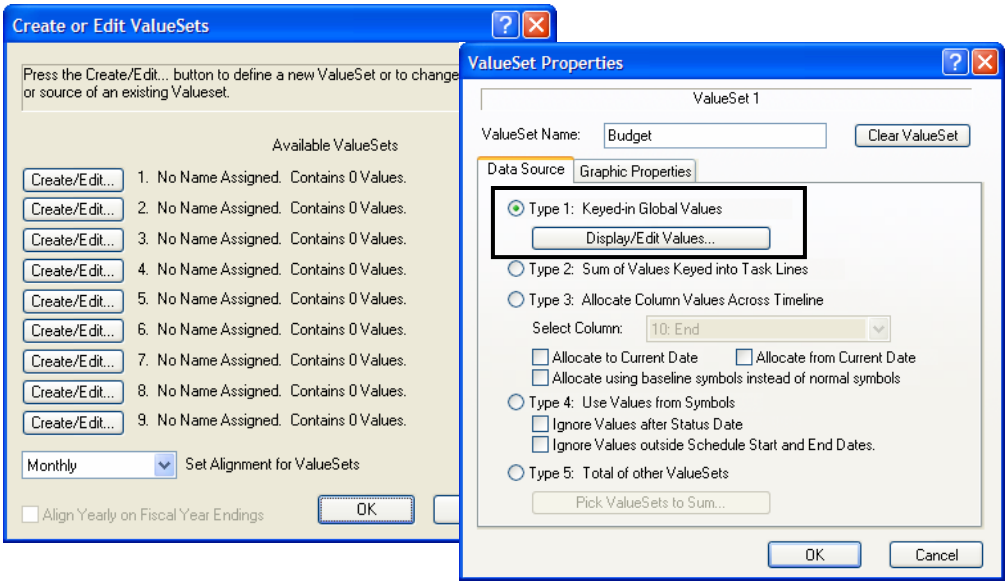
Type 1 ValueSet: Keyed-in global values

In this type of ValueSet, you enter one set of values by time period. These values apply to the entire schedule.

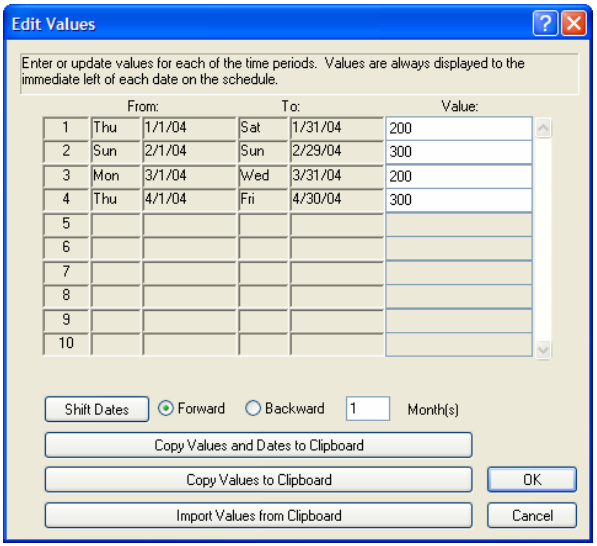
These values are displayed in the DataGraph as bars or lines, and the values can be displayed above or below the DataGraph.



1. Choose **Format** | **DataGraph** | **Set Up ValueSets**.
   - The **Create or Edit ValueSets** dialog box appears, revealing 9 **Available ValueSets**, as shown below, left.
2. To the left of **Set Alignment for ValueSets**, choose a time period by which the values will be entered, totaled and graphed.
   - In the example above, the Alignment is Monthly.
3. Click any **Create/Edit** button with **No Named Assigned**. The **ValueSet Properties** dialog box appears, as shown below, right.
4. Type a value category name for **ValueSet Name**—here, "Budget" is entered.
5. Click **Type 1: Keyed-in Global Values**.


Create or Edit ValueSets
Press the Create/Edit... button to define a new ValueSet or to change or source of an existing Valueset.
Available ValueSets
Create/Edit... 1. No Name Assigned. Contains 0 Values.
Create/Edit... 2. No Name Assigned. Contains 0 Values.
Create/Edit... 3. No Name Assigned. Contains 0 Values.
Create/Edit... 4. No Name Assigned. Contains 0 Values.
Create/Edit... 5. No Name Assigned. Contains 0 Values.
Create/Edit... 6. No Name Assigned. Contains 0 Values.
Create/Edit... 7. No Name Assigned. Contains 0 Values.
Create/Edit... 8. No Name Assigned. Contains 0 Values.
Create/Edit... 9. No Name Assigned. Contains 0 Values.
Monthly
Set Alignment for ValueSets
Align Yearly on Fiscal Year Endings
OK
ValueSet Properties
ValueSet 1
ValueSet Name:
Budget
Clear ValueSet
Data Source
Graphic Properties
Type 1: Keyed-in Global Values
Display/Edit Values...
Type 2: Sum of Values Keyed into Task Lines
Type 3: Allocate Column Values Across Timeline
Select Column:
10: End
Allocate to Current Date
Allocate from Current Date
Allocate using baseline symbols instead of normal symbols
Type 4: Use Values from Symbols
Ignore Values after Status Date
Ignore Values outside Schedule Start and End Dates.
Type 5: Total of other ValueSets
Pick ValueSets to Sum...
OK
Cancel

6. Click the **Display/Edit Values** button to enter the values.
    - The **Edit Values** dialog box appears, as shown:



    - The dates in the **From** and **To** columns follow the time period Alignment chosen in Step 2—monthly increments, in this example.
    - The first date, 1/1/04 in this example, is according to the schedule's start date.
7. Under **Value**, enter numbers for each time period.
    - Do not include any commas or symbols such as $.
8. Choose **OK**.
9. Choose the **Graphic Properties** tab and make selections as described on page 14-14 in this chapter.
10. Choose **OK** to return to the **Create or Edit ValueSets** dialog box.
11. Repeat Steps 3 – 9 to create or edit additional ValueSets.
12. When finished, click **OK** to return to the schedule.

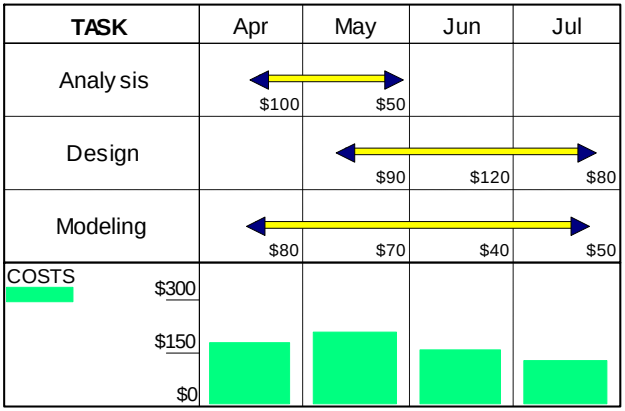
Values will not display because the DataGraph has not been created yet.

Refer to the DataGraph section of this chapter to learn how to graph these values.

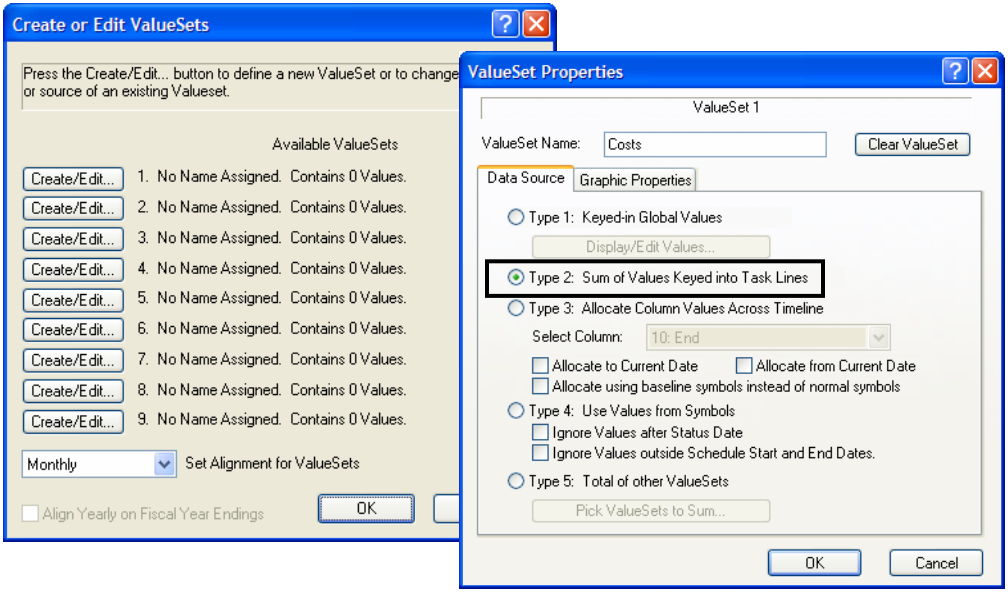
Type 2 ValueSet: Sum of values keyed into task lines

In this type of ValueSet, values are entered by time period for each task line.

These values are displayed in the DataGraph as bars or lines, and the values can be displayed above or below the DataGraph.



1. Choose **Format** | **DataGraph** | **Set Up ValueSets**.
   - The **Create or Edit ValueSets** dialog box appears, revealing 9 **Available ValueSets**, as shown below, left.
2. To the left of **Set Alignment for ValueSets**, choose a time period by which the values will be entered, totaled and graphed.
   - In the example above, the Alignment is Monthly.
3. Click any **Create/Edit** button with **No Named Assigned**. The **ValueSet Properties** dialog box appears, as shown below, right.
4. Type a value category name for **ValueSet** Name—here, “Costs” is entered.
5. Click **Type 2: Sum of Values Keyed into Task Lines**.

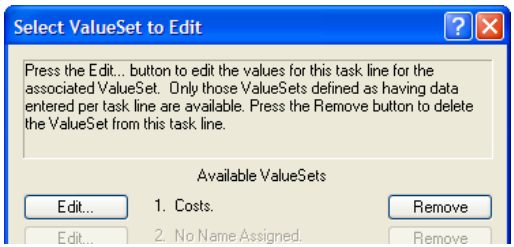

Create or Edit ValueSets
Press the Create/Edit... button to define a new ValueSet or to change or source of an existing Valueset.
Available ValueSets
Create/Edit... 1. No Name Assigned. Contains 0 Values.
Create/Edit... 2. No Name Assigned. Contains 0 Values.
Create/Edit... 3. No Name Assigned. Contains 0 Values.
Create/Edit... 4. No Name Assigned. Contains 0 Values.
Create/Edit... 5. No Name Assigned. Contains 0 Values.
Create/Edit... 6. No Name Assigned. Contains 0 Values.
Create/Edit... 7. No Name Assigned. Contains 0 Values.
Create/Edit... 8. No Name Assigned. Contains 0 Values.
Create/Edit... 9. No Name Assigned. Contains 0 Values.
Monthly
Set Alignment for ValueSets
Align Yearly on Fiscal Year Endings
OK
ValueSet Properties
ValueSet 1
ValueSet Name:
Costs
Clear ValueSet
Data Source
Graphic Properties
Type 1: Keyed-in Global Values
Display/Edit Values...
Type 2: Sum of Values Keyed into Task Lines
Type 3: Allocate Column Values Across Timeline
Select Column:
10: End
Allocate to Current Date
Allocate from Current Date
Allocate using baseline symbols instead of normal symbols
Type 4: Use Values from Symbols
Ignore Values after Status Date
Ignore Values outside Schedule Start and End Dates.
Type 5: Total of other ValueSets
Pick ValueSets to Sum...
OK
Cancel

6. Choose the **Graphic Properties** tab and make selections as described on page 14-14 in this chapter.
7. Click **OK** to return to the **Create or Edit ValueSets** dialog box.
8. Click another **Create/Edit** button with **No Named Assigned** to add another ValueSet.
9. Click **OK** to return to the schedule.

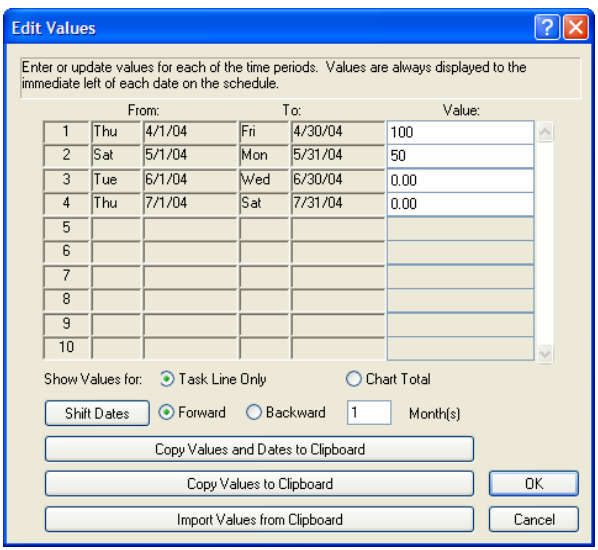
Enter values for Type 2 ValueSets

When the schedule is outlined, only the lowest outline level tasks should receive values because entered values roll-up to upper level tasks.

1. Right-click the task line in the column area and choose **Edit ValueSet**—in this example, the "Analysis" task line to begin with.
   - The **Select ValueSet to Edit** dialog box appears:


Select ValueSet to Edit
Press the Edit... button to edit the values for this task line for the associated ValueSet. Only those ValueSets defined as having data entered per task line are available. Press the Remove button to delete the ValueSet from this task line.
Available ValueSets
Edit...
1. Costs.
Remove
Edit...
2. No Name Assigned.
Remove

2. Click the **Edit** button for the ValueSet that will contain the values. The **Edit Values** dialog box appears, show below.
   - The dates in the **From** and **To** columns follow the time period Alignment from the ValueSet—monthly increments, in this example.
   - The first date, 4/1/04 in this example, is according to the schedule's start date.
4. Under **Value**, enter numbers for each time period. Usually, values are only entered for time periods that the symbols and connector bars cover—here, April and May.
   - Do not include any commas or symbols.
5. Click **OK** and **OK** to return to the schedule.
6. Repeat for other task lines.


Edit Values
Enter or update values for each of the time periods. Values are always displayed to the immediate left of each date on the schedule.
From:
To:
Value:
1 Thu 4/1/04 Fri 4/30/04 100
2 Sat 5/1/04 Mon 5/31/04 50
3 Tue 6/1/04 Wed 6/30/04 0.00
4 Thu 7/1/04 Sat 7/31/04 0.00
5
6
7
8
9
10
Show Values for: Task Line Only Chart Total
Shift Dates Forward Backward 1 Month(s)
Copy Values and Dates to Clipboard
Copy Values to Clipboard
OK
Import Values from Clipboard
Cancel

Refer to the DataGraph section of this chapter to learn how to graph these values.

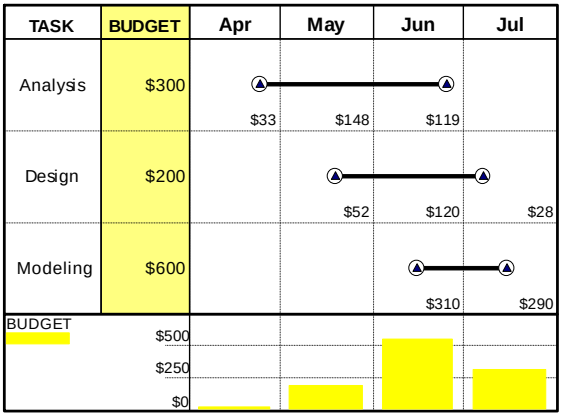
Type 3 ValueSet: Allocate column values across timeline

In this type of ValueSet, values are entered in a column.

Those values are then spread across each task's time span.

For this schedule's "Analysis" task, the $300 is distributed evenly between the days in April, May and June.

The amount for each month is based upon the total number of days in that month that are included in the time span. (Notice that the value for May is larger since it is a full month.)



For how to display the numbers under each task bar, as shown here, see page 14-15.

NOTE: While the following instructions refer to creating a Values SmartColumn and then creating a Type 3 ValueSet which references that column, a Type 3 ValueSet can reference any column containing values, such as a Calculation/Indicator SmartColumn, a Duration SmartColumn and more.

Create a Values SmartColumn and enter values

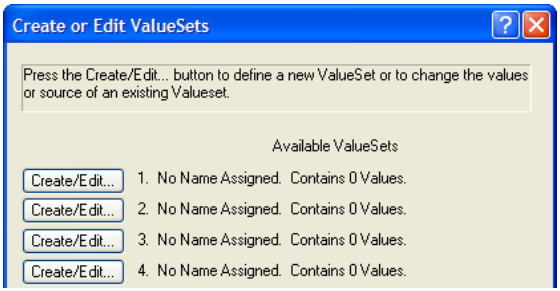
First, you will create a Values SmartColumn that will contain these values, such as the "Budget" column in the example above. Then, you will create the Type 3 ValueSet which references this column and graphs this column's values.

1. Choose **Insert** | **Column** | **Values**.
    - See Chapter 15 for how to display indicators in this column along with values, as well as other Values SmartColumn settings.
2. Choose **OK** to view the **Column Properties** dialog box.
3. Choose the **Column Heading** tab and name the column.
4. Choose the **Column Formatting** tab and make decimal and currency selections, if applicable.
5. Choose **OK** to return to the schedule.
6. Click the text tool T, click once in a cell in the new column, and then enter the values.
    - When the schedule is outlined, only the lowest outline level tasks should receive values because entered values roll-up to upper level tasks, as set under *Format* | *Summary Bar Settings*.
7. Repeat for other column cells.

Create a Type 3 ValueSet that will reference a column containing values

1. Choose **Format** | **DataGraph** | **Set Up ValueSets**.

   - The **Create or Edit ValueSets** dialog box appears, revealing 9 **Available ValueSets**:


Create or Edit ValueSets
Press the Create/Edit... button to define a new ValueSet or to change the values or source of an existing Valueset.
Available ValueSets
Create/Edit...
1. No Name Assigned. Contains 0 Values.
Create/Edit...
2. No Name Assigned. Contains 0 Values.
Create/Edit...
3. No Name Assigned. Contains 0 Values.
Create/Edit...
4. No Name Assigned. Contains 0 Values.

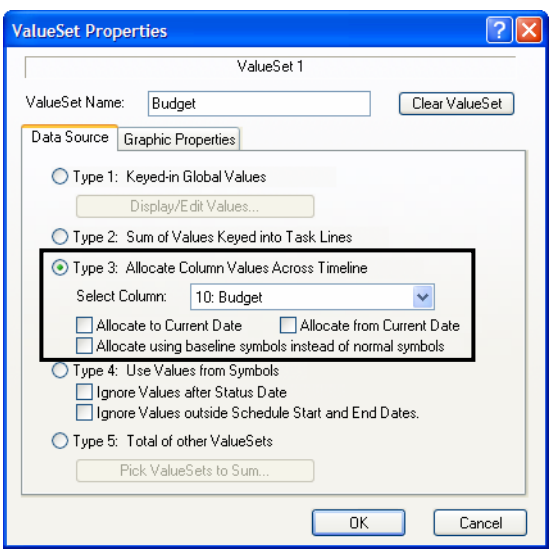
2. To the left of **Set Alignment for ValueSets**, choose a time period by which the values will be totaled and graphed.

   - In this example, the Alignment is Monthly.

3. Click any **Create/Edit** button with **No Named Assigned**. The **ValueSet Properties** dialog box appears, as shown below.
4. Type a value category name for **ValueSet Name**—here, “Budget” is entered.
5. Click **Type 3: Allocate Column Values Across Timeline**.
6. From the **Select Column** list, choose the appropriate column.

   - *Allocate to Current Date*: Values will be spread evenly from the task's start date to the current date.
   - *Allocate from Current Date*: Values will be spread evenly from the current date to the task's end date.
   - *Allocate using baseline symbols*: Values will be allocated to task bars with baseline start and end symbols, instead of normal start and end symbols.

7. Choose the **Graphic Properties** tab and make selections as described on page 14-14 in this chapter.
8. Click **OK** to return to the **Create or Edit ValueSets** dialog box.
9. Repeat Steps 3 – 8 to create or edit additional ValueSets.
10. Click **OK** to return to the schedule.



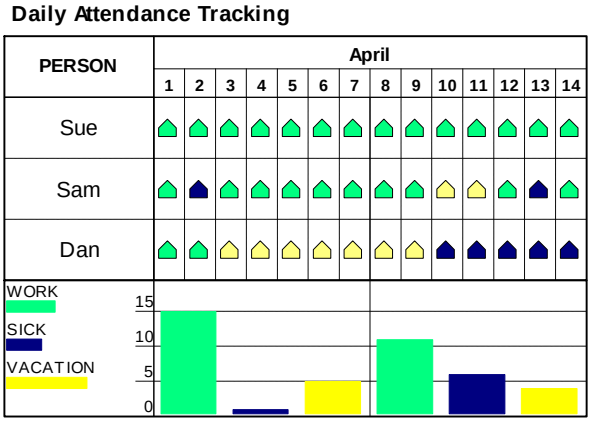
Refer to the DataGraph section of this chapter to learn how to graph these values.

Type 4 ValueSet: Use values from symbols

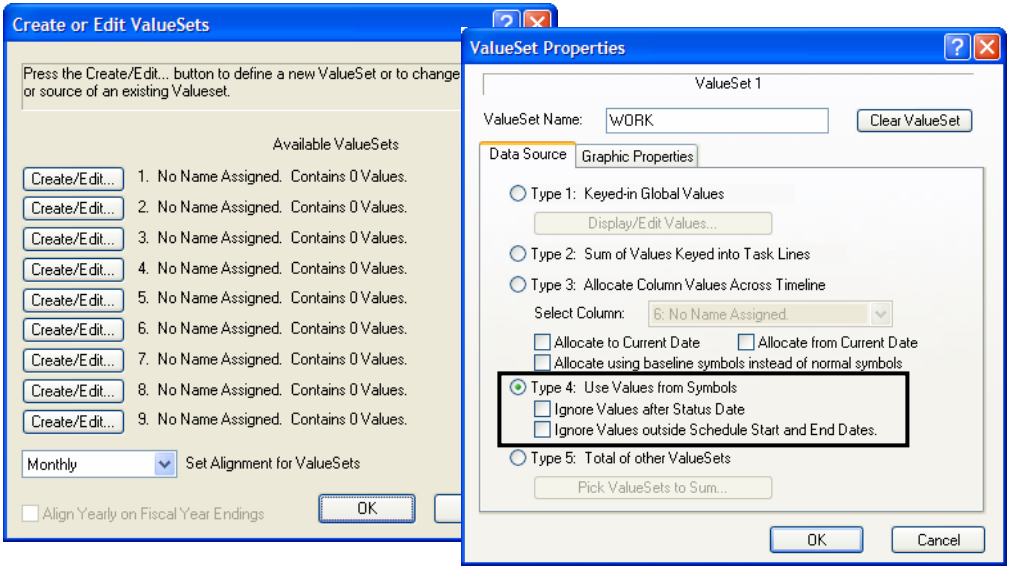
In this type of ValueSet, values are entered for each symbol and remain attached to the symbol when moved.

These values are displayed in the DataGraph as bars or lines, and the values can be displayed above or below the DataGraph.

This employee attendance example has three Type 4 ValueSets.



1. Choose **Format** | **DataGraph** | **Set Up ValueSets**.
   - The **Create or Edit ValueSets** dialog box appears, revealing 9 **Available ValueSets**, as shown below, left.
2. To the left of **Set Alignment for ValueSets**, choose a time period by which the values will be totaled and graphed.
   - In the example above, the Alignment is Weekly.
3. Click any **Create/Edit** button with **No Named Assigned**. The **ValueSet Properties** dialog box appears, as shown below, right.
4. Type a value category name for **ValueSet Name**—here, "Work" is entered.
5. Click **Type 4: Use Values from Symbols**.


Create or Edit ValueSets
Press the Create/Edit... button to define a new ValueSet or to change or source of an existing Valueset.
Available ValueSets
Create/Edit... 1. No Name Assigned. Contains 0 Values.
Create/Edit... 2. No Name Assigned. Contains 0 Values.
Create/Edit... 3. No Name Assigned. Contains 0 Values.
Create/Edit... 4. No Name Assigned. Contains 0 Values.
Create/Edit... 5. No Name Assigned. Contains 0 Values.
Create/Edit... 6. No Name Assigned. Contains 0 Values.
Create/Edit... 7. No Name Assigned. Contains 0 Values.
Create/Edit... 8. No Name Assigned. Contains 0 Values.
Create/Edit... 9. No Name Assigned. Contains 0 Values.
Monthly
Set Alignment for ValueSets
Align Yearly on Fiscal Year Endings
OK
ValueSet Properties
ValueSet 1
ValueSet Name: WORK
Clear ValueSet
Data Source
Graphic Properties
Type 1: Keyed-in Global Values
Display/Edit Values...
Type 2: Sum of Values Keyed into Task Lines
Type 3: Allocate Column Values Across Timeline
Select Column: 6: No Name Assigned.
Allocate to Current Date
Allocate from Current Date
Allocate using baseline symbols instead of normal symbols
Type 4: Use Values from Symbols
Ignore Values after Status Date
Ignore Values outside Schedule Start and End Dates.
Type 5: Total of other ValueSets
Pick ValueSets to Sum...
OK
Cancel

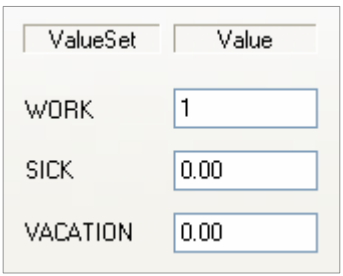
- *Ignore Values after Status Date*: Only the values attached to symbols before (to the left of) the status date will be displayed and graphed.
- *Ignore Values outside Schedule Start and End Dates*: Only the values attached to symbols within the schedule start and end date range will be displayed and graphed.
- Note that symbol values can only be entered *after* the ValueSet has been created.

6. Choose the **Graphic Properties** tab and make selections as described on page 14-14 in this chapter.
7. Click **OK** to return to the **Create or Edit ValueSets** dialog box.
8. Repeat Steps 3 – 7 to create or edit additional ValueSets.
9. When finished, click **OK** to return to the schedule.

Add values to symbols

Next, add values to symbols on the schedule.

1. In the toolbox, click the arrow tool .
2. On the schedule, right-click a symbol.
3. Choose **Edit Symbol ValueSet**.
4. Enter a **Value** for any or all of the **ValueSets**, as shown to the right.
5. Click **OK**.
6. Repeat for other symbols.



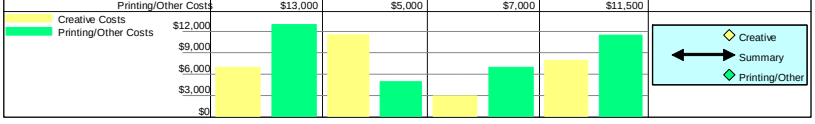
Refer to the DataGraph section of this chapter to learn how to graph these values.

Here is another example of a Type 4 ValueSet.

Additionally, this schedule uses ValueSet SmartColumns to total symbol values by task line.

Marketing Projects -- Tracking Costs

Tasks	2000				Creative Costs	Print/Other Costs
	January	February	March	April		
ALL PROJECTS SUMMARY	◄———	———	———	———►	$29,550	$36,500
Collateral	◄———	———	———	———►	$14,550	$28,000
Logo	$4,000	$5,000			$4,000	$5,000
Product Packaging	$2,000	$5,550	$7,000		$7,550	$7,000
Brochure	$8,000	$3,000		$8,000	$3,000	$16,000
PR	◄———	———	———	———►	$15,000	$8,500
Press Release Template	$1,000			$3,500	$1,000	$3,500
Press Activities	$5,000	$3,000	$3,000	$8,000	$14,000	$5,000
Creative Costs	$7,000	$11,550	$3,000	$8,000		
Printing/Other Costs	$13,000	$5,000	$7,000	$11,500		



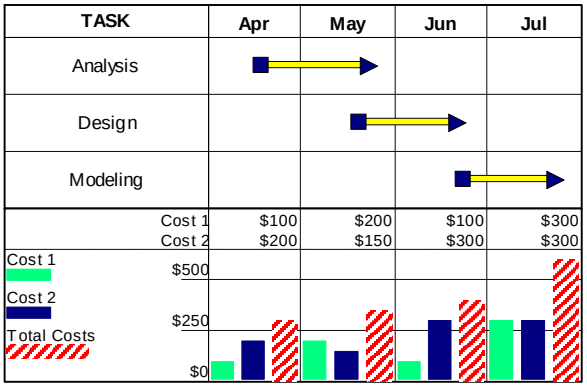
Type 5 ValueSet: Total of other ValueSets

In this type of ValueSet, other ValueSets are totaled.

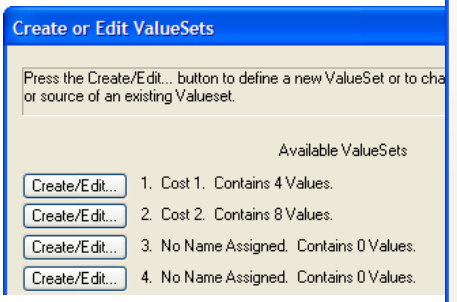
These values are displayed in the DataGraph as bars or lines, and the values can be displayed above or below the DataGraph.

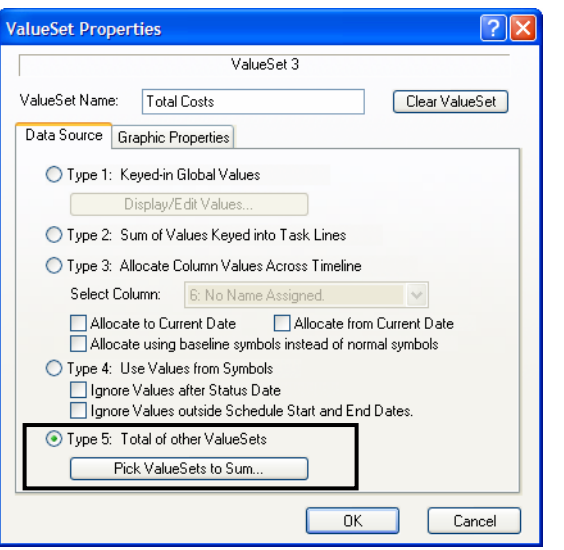
This example has three ValueSets.

The “Cost 1” and “Cost 2” ValueSets are Type 1, and “Total Costs” is a Type 5 ValueSet that totals “Cost 1” and “Cost 2.”

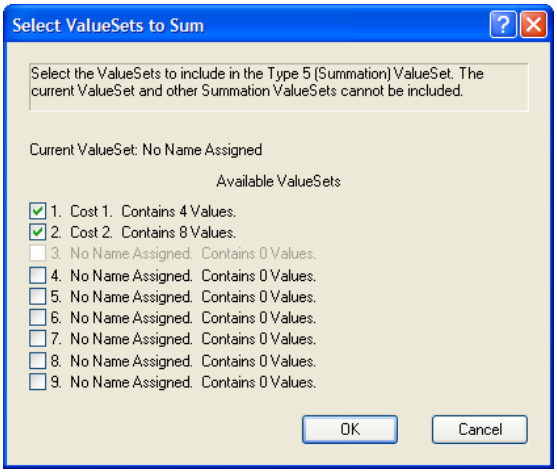


1. Choose **Format** | **DataGraph** | **Set Up ValueSets**.
   - The **Create or Edit ValueSets** dialog box appears, revealing 9 **Available ValueSets**, as shown below, left.
2. To the left of **Set Alignment for ValueSets**, choose a time period by which the values will be totaled and graphed.
   - In the example above, the Alignment is Monthly.
3. Click any **Create/Edit** button with **No Named Assigned**. The **ValueSet Properties** dialog box appears, as shown below, right. For this example, two ValueSets already exist, so that they can be totaled.
4. Type a value category name for **ValueSet Name**—here, “Total Costs” is entered.
5. Click **Type 5: Total of other ValueSets**.
6. Click the **Pick ValueSets to Sum** button.


Create or Edit ValueSets
Press the Create/Edit... button to define a new ValueSet or to cha
or source of an existing Valueset.
Available ValueSets
Create/Edit... 1. Cost 1. Contains 4 Values.
Create/Edit... 2. Cost 2. Contains 8 Values.
Create/Edit... 3. No Name Assigned. Contains 0 Values.
Create/Edit... 4. No Name Assigned. Contains 0 Values.

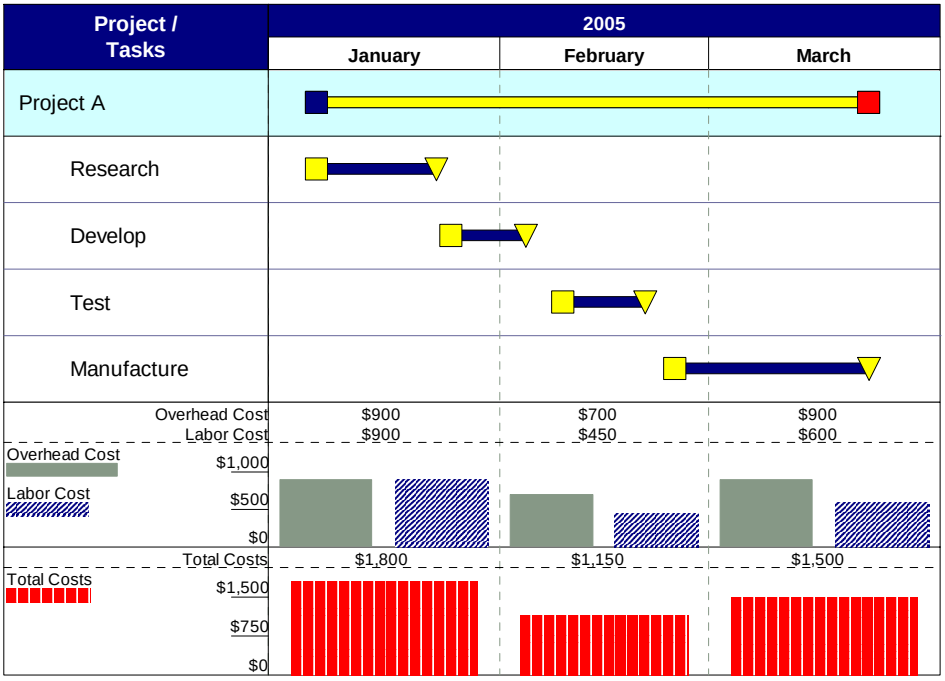

ValueSet Properties
ValueSet 3
ValueSet Name: Total Costs
Clear ValueSet
Data Source
Graphic Properties
Type 1: Keyed-in Global Values
Display/Edit Values...
Type 2: Sum of Values Keyed into Task Lines
Type 3: Allocate Column Values Across Timeline
Select Column: 6: No Name Assigned.
Allocate to Current Date
Allocate from Current Date
Allocate using baseline symbols instead of normal symbols
Type 4: Use Values from Symbols
Ignore Values after Status Date
Ignore Values outside Schedule Start and End Dates.
Type 5: Total of other ValueSets
Pick ValueSets to Sum...
OK
Cancel

7. In the **Select ValueSets to Sum** dialog box, check the ValueSets to total.
8. Click **OK**.
9. Choose the **Graphic Properties** tab and make selections as described on page 14-14 in this chapter.
10. Click **OK** to return to the **Create or Edit ValueSets** dialog box.
11. Click another **Create/Edit** button with **No Named Assigned** to add another ValueSet.
12. Click **OK** to return to the schedule.


Select ValueSets to Sum
Select the ValueSets to include in the Type 5 (Summation) ValueSet. The current ValueSet and other Summation ValueSets cannot be included.
Current ValueSet: No Name Assigned
Available ValueSets
1. Cost 1. Contains 4 Values.
2. Cost 2. Contains 8 Values.
3. No Name Assigned. Contains 0 Values.
4. No Name Assigned. Contains 0 Values.
5. No Name Assigned. Contains 0 Values.
6. No Name Assigned. Contains 0 Values.
7. No Name Assigned. Contains 0 Values.
8. No Name Assigned. Contains 0 Values.
9. No Name Assigned. Contains 0 Values.
OK
Cancel

Refer to the DataGraph section of this chapter to learn how to graph these values.

The ValueSets can also be displayed in separate DataGraphs, as shown below:

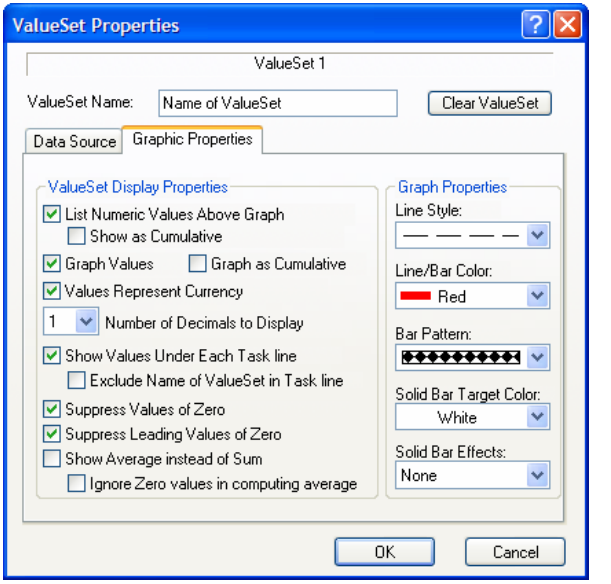


ValueSet Graphic Properties

ValueSet graphic display options allow you to independently format how each ValueSet is displayed as numbers and graphs of numbers.

Each ValueSet can have different settings for line/bar graph colors and patterns; cumulative and non-cumulative display of values and graphing of values; adding currency symbols to values; decimal place control; summing of values and averaging of values; and much more.

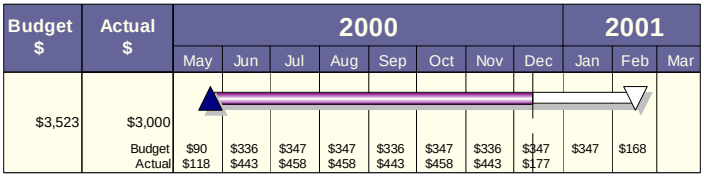
1. Choose **Format** | **DataGraph** | **Set Up ValueSets**.
2. Click **Create/Edit** for the appropriate ValueSet. The **ValueSet Properties** dialog box appears.
3. Click the **Graphic Properties** tab, as shown:



   This tab has two sections: the *ValueSet Display Properties* and the *Graph Properties*.

4. Under **ValueSet Display Properties**:
   - *List Numeric Values Above Graph*: Values appear above DataGraph.
   - *Show as Cumulative*: Values appear above DataGraph as cumulative values.
   - *Graph Values*: Values are converted to line or bar graphs.
   - *Graph as Cumulative*: Cumulative values are converted to line or bar graphs.
   - *Values Represent Currency*: Add currency symbol to values. Affects ValueSet values above/below DataGraph, Y-axis values, and ValueSet values under each task line. Y-axis currency display is controlled by the first ValueSet's setting for that DataGraph.
   - *Number of Decimals to Display*: Choose 0 - 6 decimal places when displaying values. Affects ValueSet values above/below DataGraph, Y-axis values, and ValueSet values under each task line. Y-axis decimal display is controlled by the first ValueSet's setting for that DataGraph.

- *Show Values Under Each Taskline*: For Type 2, 3 and 4 ValueSets, only. Display values on task lines and within the appropriate time periods.



- *Exclude Name of ValueSet in Taskline*: For Type 2, 3 and 4 ValueSets, only. Hide the name of the ValueSet which will otherwise display in the column area, in line with its value on the task line. The example above does not exclude ValueSet names in the task lines.
- *Suppress Values of Zero*: To not display values of 0 (zero) above/below the DataGraph or on task line ValueSet value displays.
- *Suppress Leading Values of Zero*: For ValueSet numbers such as 0.35 to appear as .35.
- *Show Average instead of Sum*: Normally, ValueSet values are totalled by time period, then displayed above the graph and graphed as summed values. This option changes that computation to an average of values.
- *Ignore Zero values when computing average*: Does not consider ValueSet values of zero when computing average.

5. Under **Graph Properties**:

   Note that the choice of displaying the values as lines, bars, or wide bars in the DataGraph is made in the *DataGraph Options* dialog box, as discussed in the next section.

   - *Line Style*: For line graphs in the DataGraph, choose a thin line, dotted line, dashed line or thicker line.
   - *Line/Bar Color*: Choose a line color or bar fill color.
   - *Bar Pattern*: For bar graphs in the DataGraph, choose a pattern which fills each bar. Marbled patterns are full-colored bitmaps which will ignore any foreground or background color settings. Use of these increases the size of printer files and metafiles, especially on high-resolution printers. Thus, printing time may be increased.
   - *Solid Bar Target Color*: For the solid Bar Pattern only, choose a Target Color for fading from the Line/Bar Color to this Target Color. For other bar patterns, the Target Color fills the white area shown in the bar pattern sample.
   - *Solid Bar Effect*: For the solid Bar Pattern only, choose a gradient fill pattern for fading from the Line/Bar Color to this Target Color.

6. Choose **OK** and **OK** to return to the schedule.

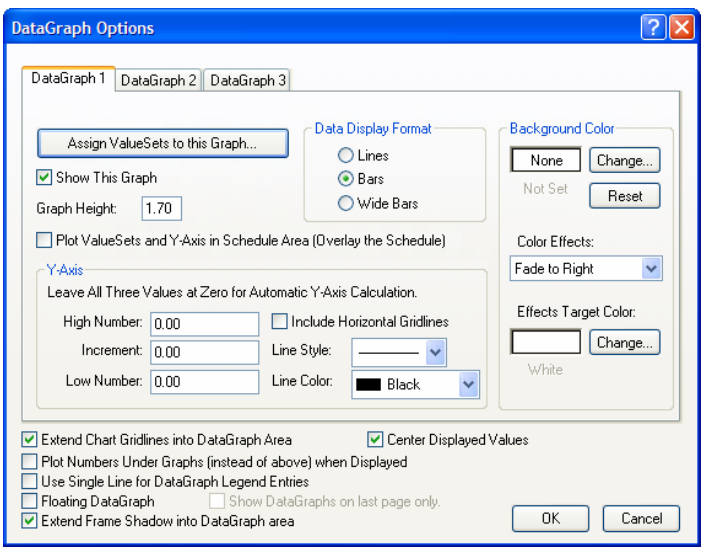
DataGraphs

DataGraphs display values from ValueSets as bar or line graphs. One DataGraph can display up to 8 ValueSets.

A schedule can have up to 3 DataGraphs, none of which is allowed to take up more than ½ of the available space. Attributes associated with the DataGraph are height, background color with fade effects, assigned ValueSets, line or bar display, ValueSet placement (DataGraph area or Schedule area), floating DataGraph, user-defined or automatic Y-axis values, and more.

You can create a DataGraph before or after creating ValueSets, yet a main component of formatting the DataGraph is choosing which ValueSets to display. Thus, normally, ValueSets are created first.

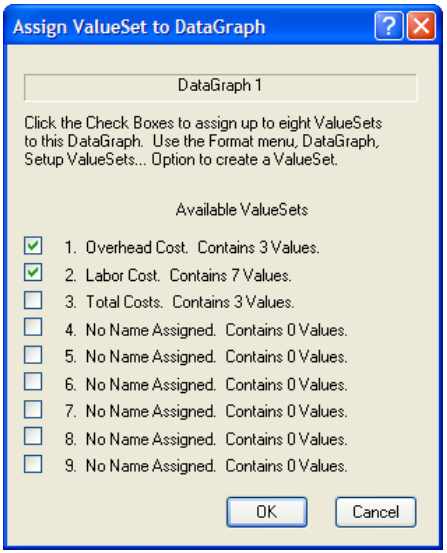
1. Choose **Format** | **DataGraph** | **DataGraph Properties**. The **DataGraph Options** dialog box appears, with tabs for each of the three available DataGraphs.



2. Choose the tab for **DataGraph 1**, **DataGraph 2**, or **DataGraph 3**.
3. For **Graph Height**, enter a value in inches.
4. **Plot ValueSets and Y-Axis in Schedule Area** to display the graph on the schedule instead of below the schedule.
5. Under **Data Display Format**, choose to graph values as **Bars**, **Lines**, or **Wide Bars**.
6. Under **Background Color**, click the **Change** button and choose a color.

7. Choose a fade setting under **Color Effects** and then choose an **Effects Target Color**. The *Background Color* will fade into the *Effects Target Color*.
8. Under **Y-Axis**, you can customize the value increments that display in the DataGraph.
    - Leave all values at 0 for Milestones to automatically calculate high, low and increment values based on the powers of 10 when possible, for values up to 1,000,000,000. For graphing negative numbers, 0 may not appear on the Y-axis when Milestones calculates the Y-axis values.
    - For a custom display of Y-Axis values, enter a **High Number** representing the highest number to be displayed along the Y-axis; enter a **Low Number** representing the lowest number; enter an **Increment** which controls the incremental appearance of values between the high and low numbers along the Y-axis.
9. Choose to **Include Horizontal Gridlines** that extend from the Y-Axis values, across the DataGraph area, cutting through the line and bar graphs.
10. Click the **Assign ValueSets to this Graph** button.

    The **Assign ValueSet to DataGraph** dialog box appears, as shown.


Assign ValueSet to DataGraph
DataGraph 1
Click the Check Boxes to assign up to eight ValueSets to this DataGraph. Use the Format menu, DataGraph, Setup ValueSets... Option to create a ValueSet.
Available ValueSets
1. Overhead Cost. Contains 3 Values.
2. Labor Cost. Contains 7 Values.
3. Total Costs. Contains 3 Values.
4. No Name Assigned. Contains 0 Values.
5. No Name Assigned. Contains 0 Values.
6. No Name Assigned. Contains 0 Values.
7. No Name Assigned. Contains 0 Values.
8. No Name Assigned. Contains 0 Values.
9. No Name Assigned. Contains 0 Values.
OK
Cancel

11. the **Available ValueSets** that should appear in this DataGraph.
12. Click **OK**.
13. Click the **DataGraph 2** or **DataGraph 3** tab to format and add ValueSets to the other two available graph areas.
14. Options which apply to all DataGraphs:
    - **Extend Chart Gridlines into DataGraph area** to display vertical gridlines in the DataGraph as well as the schedule area.
    - **Plot Values under Graphs** to display numbers from ValueSets under the DataGraph, instead of above the DataGraph.
    - **Use Single Lines for DataGraph Legend Entries** to display the name of the ValueSet and the graph color for that ValueSet along a single horizontal space.
    - **Float DataGraph** to undock the DataGraph from the bottom of the schedule.

- **Show DataGraphs on last page only** to display floating DataGraphs on only the last schedule page.
- **Extend Frame Shadow into DataGraph area** to display the schedule's shadow (if displayed) along the edge of the DataGraphs as well.
- **Center Displayed Values** to align the values above or below the graph in the center of the time period in which the values display.

15. Click **OK** to return to the schedule.
16. The values from the selected ValueSets should now display in the appropriate DataGraphs.

ValueSet SmartColumn

The ValueSet SmartColumn is used to display the row total (task line total) of any Type 2 or Type 4 ValueSet in a column cell.

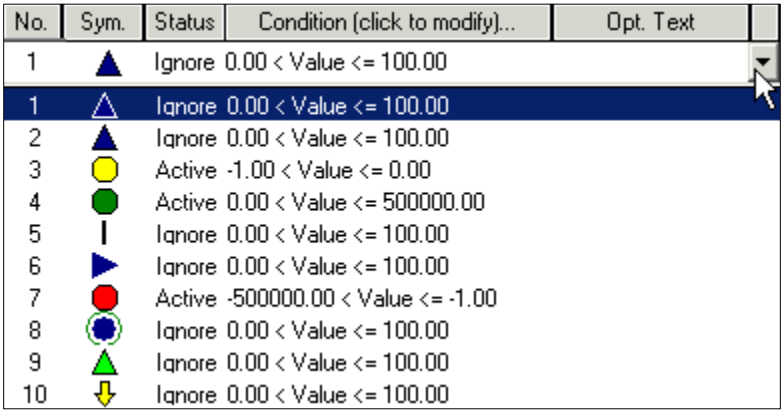
Why only these two ValueSets? Type 2 values are entered in time period increments, row-by-row; therefore, they can be totaled by row. Type 4 values are attached to symbols that, of course, appear on task lines; therefore, those values can also be totaled on a row-by-row basis.

These instructions assume that you have first created a Type 2 or Type 4 ValueSet as described previously.

1. Choose **Insert** | **Column** | **ValueSet**.
2. Under **ValueSet to Use**, choose the ValueSet whose values will be totaled in this column.

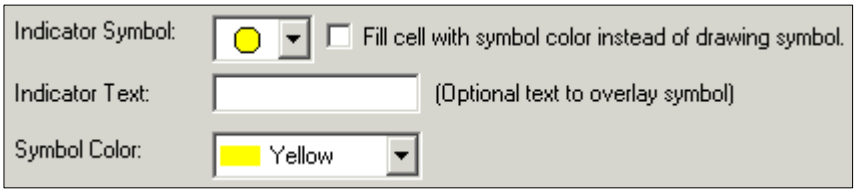
Optional Indicators:

3. ⊙ **Pick indicator symbology based upon the following conditions** to display symbols, text, and/or color based on the column values.
4. Click the drop-down arrow to view 10 active/ignored indicators and their conditions.


No.
Sym.
Status
Condition (click to modify)...
Opt. Text
1 Ignore 0.00 < Value <= 100.00
1 Ignore 0.00 < Value <= 100.00
2 Ignore 0.00 < Value <= 100.00
3 Active -1.00 < Value <= 0.00
4 Active 0.00 < Value <= 500000.00
5 Ignore 0.00 < Value <= 100.00
6 Ignore 0.00 < Value <= 100.00
7 Active -500000.00 < Value <= -1.00
8 Ignore 0.00 < Value <= 100.00
9 Ignore 0.00 < Value <= 100.00
10 Ignore 0.00 < Value <= 100.00

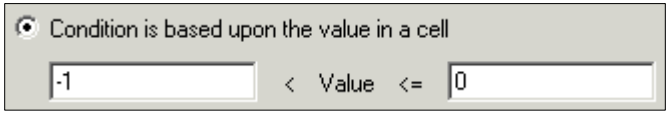
- Any of these symbols can be changed to another symbol from the toolbox.
- All symbols are **Ignored** until you create a condition for them to appear, becoming **Active**.

5. Choose one of the ten symbols. The **Indicator Condition Settings** dialog box opens, as shown below:



- Choose an **Indicator Symbol**. They are the symbols from the toolbox.
- OR, choose to **Fill the cell with the symbol color**, not the symbol itself.
- Optionally, enter **Indicator Text** to appear with the symbol or color fill.
- Choose the **Symbol Color** for the symbol or color fill.

6. The indicator can appear based on a value in the column cell.



- **Condition is based upon the value in a cell**.
- The indicator will appear when a cell's value is greater than the first value and less than/equal to the second value.
- Use neither commas nor currency signs when entering values.

7. Choose **OK** to return to the **Pick indicator symbology based upon the following conditions** list.
8. Repeat Steps 3 - 7 to activate other indicators.
9. Choose **Symbol size** and symbol alignment.
10. **Display numerical value also** to show the values.

    Display numerical value also to only show the indicators resulting from the column values.

11. Choose **OK** to return to the **Column Properties** dialog box where you can add a column heading title and format the column data for currency, decimals, and other selections.
12. Choose OK to return to the schedule.

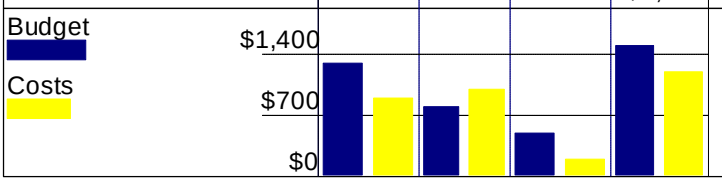
The example below has two Type 2 ValueSets, "Budget" and "Costs." Monthly budget values and cost values are entered for each task. The values are totaled for each month, then displayed and graphed below the schedule.

The "Budget per Task" and "Costs per Task" columns are ValueSet SmartColumns. The "Budget per Task" ValueSet SmartColumn totals the "Budget" Type 2 ValueSet values for each task row. The "Costs per Task" ValueSet SmartColumn totals the "Costs" Type 2 ValueSet values for each task row.

Thus, ValueSet SmartColumns can total values from selected Type 2 or Type 4 ValueSets.

The "Budget per Task" column also displays indicator symbols based on the column cell values.

TASKS		2005 Jan	2005 Feb	2005 Mar	2005 Apr	Budget	Costs
Design	Budget	$500				$500	$400
	Costs	$400					
Test	Budget	$800	$800	$500		$2,100	$1,700
	Costs	$500	$1,000	$200			
Manufacture	Budget				$1,500	$1,500	$1,200
	Costs				$1,200		



Budgets over $2,000 Budgets under $2,000

Chapter 15: SmartColumns and Indicators

How do you know if a project activity is costing more than the expected budget? In a project schedule with hundreds of activities, it's helpful to display status "indicators" to show at-a-glance which activities are under/on/over budget, of long/medium/short duration, complete/started/not started, and more.

Milestones displays these status "indicators" in specialized SmartColumns based upon user-defined conditions. Not only can any toolbox symbol be displayed in these SmartColumns, the "indicator" displayed can also be text, a number, color, percent pie or combinations of these items.

Indicators can appear in these SmartColumns: Calculation/Indicator, Duration, Percent Complete, Stoplight, Values and ValueSet.

Note that this chapter only addresses the basics of indicators displayed in columns. For extensive instructions and examples on the wide variety of possibilities for these SmartColumns and others, refer to the *Help* menu, *Milestones Professional Help Topics* option. Select *SmartColumns* under the *Contents* tab.

What is a SmartColumn?

SmartColumns automatically fill according to schedule data or entered data. For example, the Symbol Count SmartColumn automatically totals the number of symbols on a task line, and the Duration SmartColumn calculates the length of time between the first symbol and last symbol for each task line. As noted above, some SmartColumns can also display indicators.

Indicator Symbols and SmartColumns Example

This "stoplight" chart uses indicator symbols to report project status by displaying red, green, and yellow circles for each task line. The symbol's appearance is based on the value in the column cell.

Contract Task Plan Status Report

Percent Complete	Project/ Task	2002 Jan Feb Mar Apr	Hours	Cost per Hour	Calculated Cost	Budget	Budget minus Cost
68%	Project Totals	Review	1090	$76	$78,075	$83,600	$5,525
100%	Research		250	$63	$16,250	$17,000	$750
100%	Team 1	1/16 1/26	100	$50	$5,000	$5,000	$0
100%	Team 2	2/2 2/17	150	$75	$11,250	$12,000	$750
100%	Development 1	1/27 2/7	200	$78	$15,600	$15,600	$0
57%	Development 2	2/26 3/20	300	$52	$15,600	$16,000	$400
54%	Manufacturing	2/8 2/20 3/22 4/1	225	$85	$19,125	$20,000	$875
53%	Testing	1.1 1.2 1.3 2.1 2.2	115	$100	$11,500	$10,000	($1,500)
0%	Delivery	3/21 4/18	0	$90	$0	$5,000	$5,000

Over Budget · On Budget · Under Budget · Status · Completed Task · To be completed

The "Hours," "Cost per Hour," and "Budget" columns are Values SmartColumns that contain user-entered values. The "Calculated Cost" column is a Calculation/Indicator SmartColumn that multiplies "Hours" and "Cost per Hour." The "Budget minus Cost" column is also a Calculation/Indicator SmartColumn; it subtracts the "Calculated Cost" values from the "Budget" column values and displays symbols and values accordingly.

Stoplight SmartColumn

The Stoplight SmartColumn offers two basic methods for displaying stoplight symbols, text and colors based on user-entered numbers 1 to 4, or 1 to 10.

Standard Stoplights: Built-in stoplights appear based on user-entered numbers (1 = green, 2 = yellow, 3 = red, 4 = blue). G, Y, R, and B can appear with the stoplights. Optionally, display color-fills instead of the stoplights.

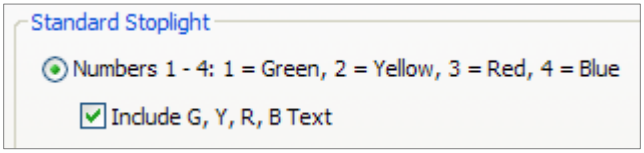
Custom Stoplights: Assign numbers 1 through 10 to any symbol, color and optional text. Optionally, display color-fills instead of the stoplights.

Create a Stoplight SmartColumn

1. Choose **Insert** | **Column** | **Stoplight**.

For *Standard Stoplights*:

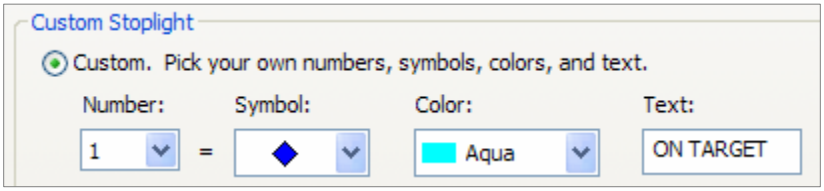
- Under **Standard Stoplight**, choose **Numbers 1-4**.



- When 1 is entered in a column cell, a green stoplight symbol will appear; 2 displays a yellow stoplight; 3 displays a red stoplight; 4 displays a blue stoplight.
- **Include G, Y, R, B Text** to display these letters with their appropriate stoplights or color-fills. G appears with green; Y appears with yellow; R appears with red; B appears with blue.

For *Custom Stoplights*:

- Under **Custom Stoplight**, choose **Custom. Pick your own...**



- Select any **Number**, 1 through 10.
- Select a **Symbol** to appear when that number is entered in a column cell.
- Select a **Color** for the symbol or column cell fill-color.
- Optionally, enter **Text** (up to 29 characters) to appear with the symbol or cell fill-color.

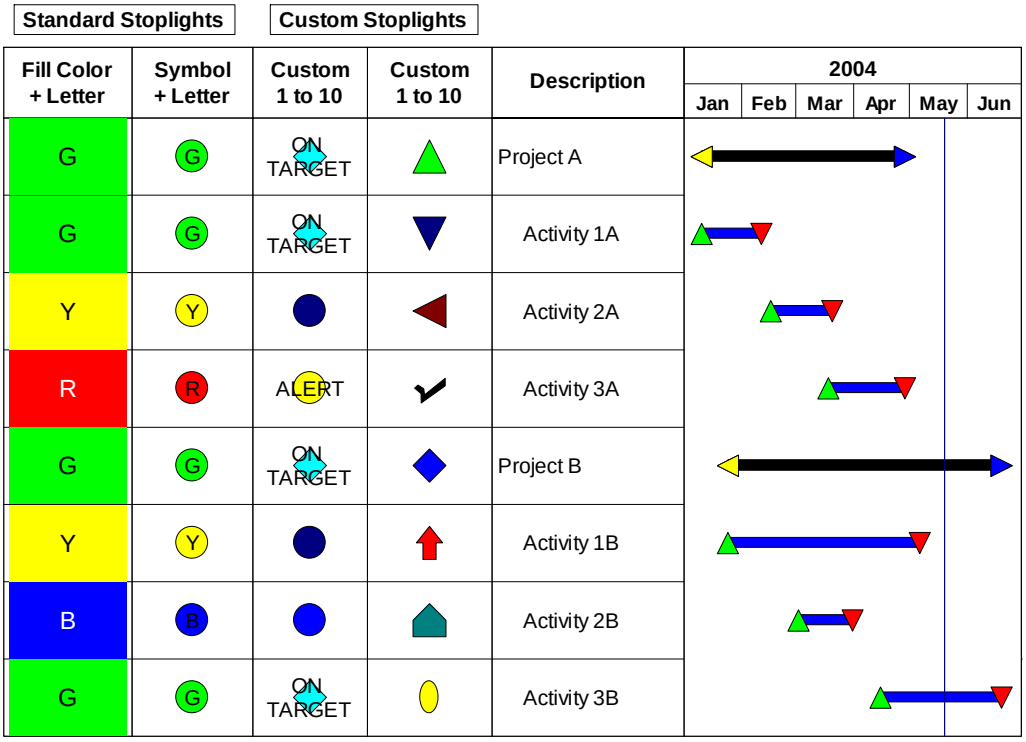
2. Optionally, **Fill the cell with color instead of displaying a symbol** to do just that. The selected color, instead of the symbol, fills the column cell.
3. Select the **Stoplight symbol size** from .10 to 5.0.
4. Choose **OK**.
5. Make changes under **Column Heading** and **Column Formatting**.

The list of available symbols for stoplights is generated from the symbols in the toolbox. Therefore, you would need to change the available symbols in the toolbox to change the list of available symbols for stoplights.

For displaying indicator symbols or text based on other column's values or text, ranges of numbers, and calculation results, use Calculation/Indicator SmartColumns, Values SmartColumns and ValueSet SmartColumns.

Stoplight SmartColumn example

In this Stoplight SmartColumn sampler, the two columns to the far left use the Standard option of green, yellow, red, and blue symbols or color-fills with the optional letters. The other two columns use the Custom option of matching any symbol, color and text to numbers 1 to 10.



Calculation/Indicator SmartColumn

Calculation/Indicator SmartColumns display values and/or value-driven indicators through these methods:

- Multiply, divide, add, or subtract any two columns with values.
- Multiply a column by percent complete or percent not complete.
- Display symbols, colors, or text based on calculated values, user-entered values from another column, or text from another column.

You can also use the results of one calculation column in another calculation, as well as choose to show the result as a percent or add a % sign with the resulting value.

Calculation/Indicator SmartColumn examples

Calculation SmartColumn

Items	2001			Units Sold	Price per Unit	Total Sales
	January	February	March			
All Items				377	$43	$17,154
Task 1	10	15	20	45	$35	$1,575
Task 2	18	14	22 23	77	$35	$2,695
Task 3	35	26	33 28	122	$62	$7,564
Task 4	33 14	42	19 25	133	$40	$5,320

The symbols in this schedule have numbers associated with them (“Units Sold”).

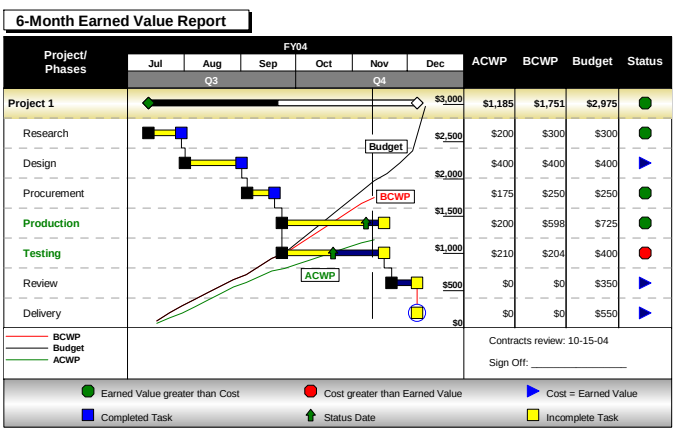
These numbers, which are part of a ValueSet, are added up in the “Units Sold” column (a ValueSet SmartColumn).

“Total Sales” is a Calculation/Indicator SmartColumn that multiplies the “Units Sold” column by the “Price per Unit” column.

Earned value calculations are easy to do with Calculation/Indicator SmartColumns.

This schedule multiplies “Budget” by percent complete to yield earned value—“BCWP.”

The values are graphed across the schedule area for at-a-glance status reporting.



The “Status” column is a Calculation/Indicator SmartColumn which subtracts ACWP from BCWP and displays indicator symbols accordingly, while hiding the numeric calculation results.

Calculation/Indicator SmartColumn options

1. Make a calculation between two columns and show the resulting values.

Cost	Budget	Budget minus Cost
$27,750	$29,250	$1,500
$16,250	$16,250	$0

2. Make a calculation between two columns and show the resulting values with symbols, text or colors.

Cost	Budget	Budget minus Cost
$27,750	$29,250	$1,500
$16,250	$16,250	$0

Cost	Budget	Budget minus Cost
$27,750	$29,250	
$16,250	$16,250	

Cost	Budget	Budget minus Cost
$27,750	$29,250	**$1,500**
$16,250	$16,250	**$0**

Cost	Budget	Budget minus Cost
$27,750	$29,250	**UNDER**
$16,250	$16,250	**ON**

3. Use a calculation result in another calculation.

Units Sold	$ Per Unit	Units (x) $ per Unit	Target Sales	Target vs. Actual Sales
45	$17	$725	$675	$50

"Target vs. Actual Sales" uses the "Units (x) $ per Unit" results in its calculation.

4. Make a division calculation and convert the results to percent values and pies.

Total Units	Units Sold	Percent Sold
625	355	**57%**

5. Show various symbols, text or colors based on the values in another column.

Below, the "Cost Indicator" symbols are based on "Cost" values.

Cost	Cost Indicator
$91,000	

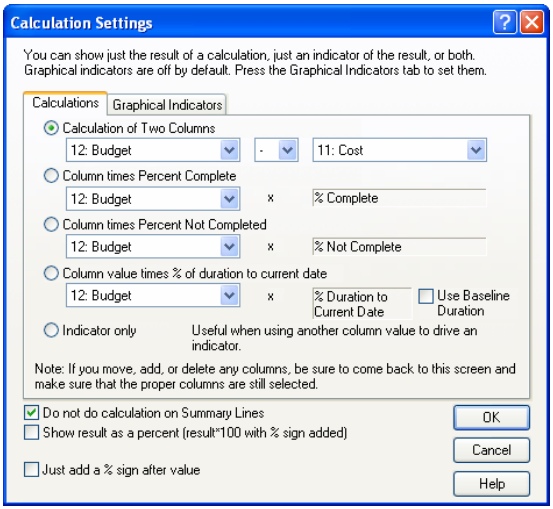
Below, the "Project Status" column displays text and colors based on user-entered values in the "Number" column.

Project Status	Number
GO	1
HOLD	2

Create a Calculation/Indictor SmartColumn

These instructions assume that you have created two Values SmartColumns whose column values can be used in a calculation.

1. Choose **Insert** | **Column** | **Calculation/Indicator**.
2. Under the **Calculations** tab, choose **Calculation of Two Columns**,
3. Choose two columns and a calculation operator (- + x /).
4. **Do not do calculation on Summary Lines** if you want the values to roll-up (add up) from lower levels to upper levels.
5. **Show result as a percent** if you want the resulting calculation values multiplied by 100, with a % sign added (.35 becomes .35 x 100 = 35%).


Calculation Settings
You can show just the result of a calculation, just an indicator of the result, or both. Graphical indicators are off by default. Press the Graphical Indicators tab to set them.
Calculations
Graphical Indicators
Calculation of Two Columns
12: Budget
-
11: Cost
Column times Percent Complete
12: Budget
x
% Complete
Column times Percent Not Completed
12: Budget
x
% Not Complete
Column value times % of duration to current date
12: Budget
x
% Duration to Current Date
Use Baseline Duration
Indicator only
Useful when using another column value to drive an indicator.
Note: If you move, add, or delete any columns, be sure to come back to this screen and make sure that the proper columns are still selected.
Do not do calculation on Summary Lines
Show result as a percent (result*100 with % sign added)
Just add a % sign after value
OK
Cancel
Help

6. **Just add a % sign after values** if you want to add % to the resulting calculation values (35 becomes 35%).

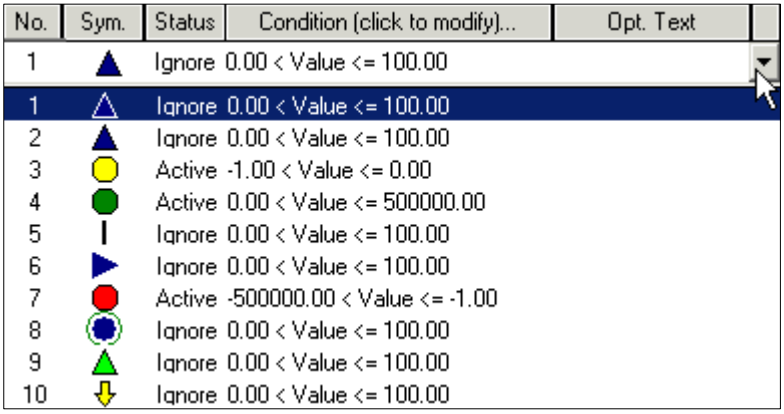
If you just want to create a calculation column, then stop here by clicking **OK**.

7. Select the **Graphical Indicators** tab. This is where you choose which indicators appear based on the calculated values in each column cell.
8. For **Column to compare**, the newly inserted column *No Name Assigned* should already be selected:

9. Align the indicator symbols as a left, center, or right position in the column cell.
10. **Display numerical value also** to show the calculation results, as shown above.

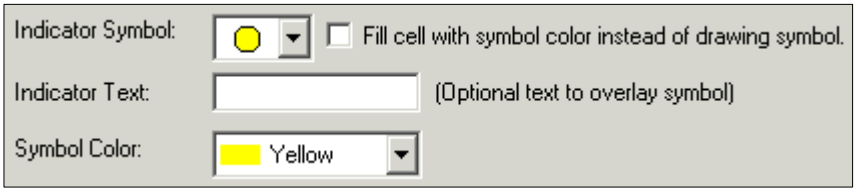
    Display numerical value also to only show the indicator that results from this calculation.

11. ⊙ **Pick indicator symbology based upon the following conditions** to display symbols, text, and/or color based on the calculated values.
12. You can now choose a **Symbol size**.
13. Click the drop-down arrow to view 10 active/ignored indicators and their conditions.


No. Sym. Status Condition (click to modify)... Opt. Text
1 Ignore 0.00 < Value <= 100.00
1 Ignore 0.00 < Value <= 100.00
2 Ignore 0.00 < Value <= 100.00
3 Active -1.00 < Value <= 0.00
4 Active 0.00 < Value <= 500000.00
5 Ignore 0.00 < Value <= 100.00
6 Ignore 0.00 < Value <= 100.00
7 Active -500000.00 < Value <= -1.00
8 Ignore 0.00 < Value <= 100.00
9 Ignore 0.00 < Value <= 100.00
10 Ignore 0.00 < Value <= 100.00

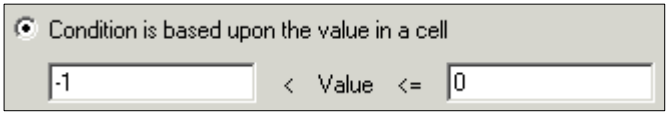
- Any of these symbols can be changed to another symbol from the toolbox.
- All symbols are **Ignored** until you create a condition for them to appear, becoming **Active**.

14. Choose one of the ten symbols. The **Indicator Condition Settings** dialog box opens, as shown below:



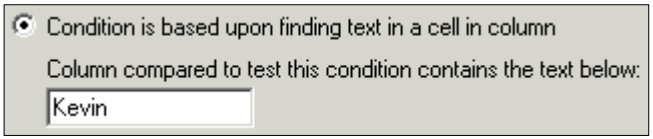
- Choose an **Indicator Symbol**. They are the symbols from the toolbox.
- OR, choose to **Fill the cell with the symbol color**, not the symbol itself.
- Optionally, enter **Indicator Text** to appear with the symbol or color fill.
- Choose the **Symbol Color** for the symbol or color fill.

15. The indicator can appear based on a value in the column cell.



- **Condition is based upon the value in a cell**.
- The indicator will appear when a cell's value is greater than the first value and less than/equal to the second value.
- Use neither commas nor currency signs when entering values.

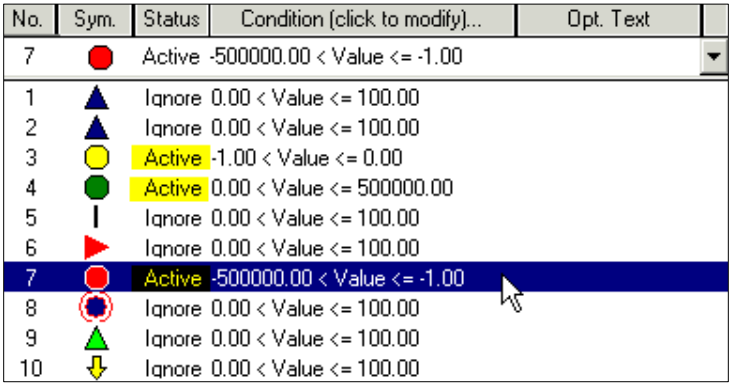
16. The indicator can appear based on text in another column's cells. This would require changing the **Column to compare** to a column which contains text.


Condition is based upon finding text in a cell in column
Column compared to test this condition contains the text below:
Kevin

- **Condition is based upon finding text in a cell in column**.
- The indicator will appear when a cell contains specific text that you enter.

17. Choose **OK** to return to the **Pick indicator symbology based upon the following conditions** list.
18. Repeat Steps 13 - 17 to activate other indicators until you have something like the example below.
19. Choose **OK** to return to the **Column Properties** dialog box where you can add a column heading title and format the column data for currency, decimals, alignment, and other selections.

In this example, three symbols are **Active** and will appear according to the set conditions. In effect, the red symbol appears with negative values, yellow with 0, and green with positive values.


No.
Sym.
Status
Condition (click to modify)...
Opt. Text
7 Active -500000.00 < Value <= -1.00
1 Ignore 0.00 < Value <= 100.00
2 Ignore 0.00 < Value <= 100.00
3 Active -1.00 < Value <= 0.00
4 Active 0.00 < Value <= 500000.00
5 Ignore 0.00 < Value <= 100.00
6 Ignore 0.00 < Value <= 100.00
7 Active -500000.00 < Value <= -1.00
8 Ignore 0.00 < Value <= 100.00
9 Ignore 0.00 < Value <= 100.00
10 Ignore 0.00 < Value <= 100.00

For extensive instructions and examples for Calculation/Indicator SmartColumns, press the *Help* button in the *Calculation Settings* (Calculation/Indicator SmartColumn) dialog box.

Values SmartColumns

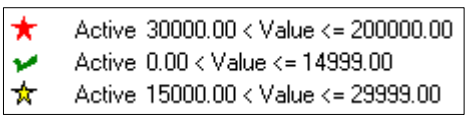
A Values SmartColumn contains user-entered values that can automatically total (roll-up) from lower task levels to upper, summary levels. A Values SmartColumn can display values only; symbols, text or colors based on those values; symbols, text, or colors based on another column's values; or a combination of these options.

Additional options include showing an average of lower level values instead of a total, on summary lines; convert the entered value to a percentage; add a % sign to the entered value; and override the summary line values.

Values SmartColumn example

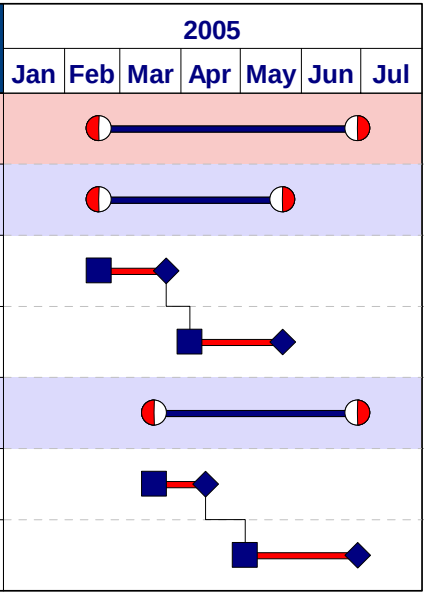
In this example, the Cost column values for Task A1 and A2 are automatically totaled and displayed in Project A's Cost cell. Cost values for Project A and Project B are automatically totaled and displayed in All Project's Cost cell. The symbols are displayed according to the values in each Cost column cell. The symbols and conditions are user-defined.

Here are the user-defined value ranges that cause the symbols to display in the "Cost" Values SmartColumn:



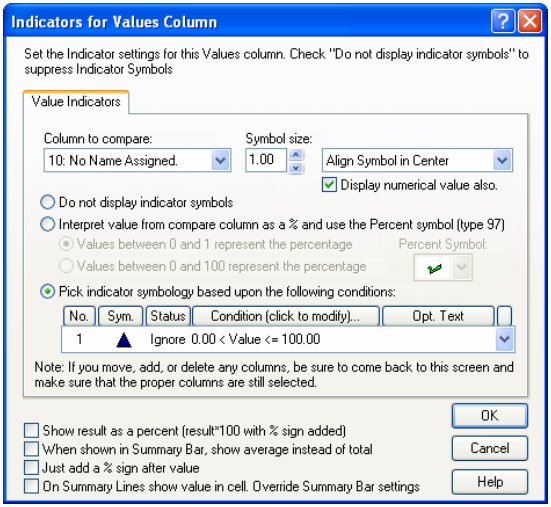
Values SmartColumn with Symbol Indicators

Outline Level	Task	Cost
1	All Projects	$43,100
2	Project A	$13,500
3	Task A1	$7,500
3	Task A2	$6,000
2	Project B	$29,600
3	Task B1	$21,000
3	Task B2	$8,600



Create a Values SmartColumn with optional indicators

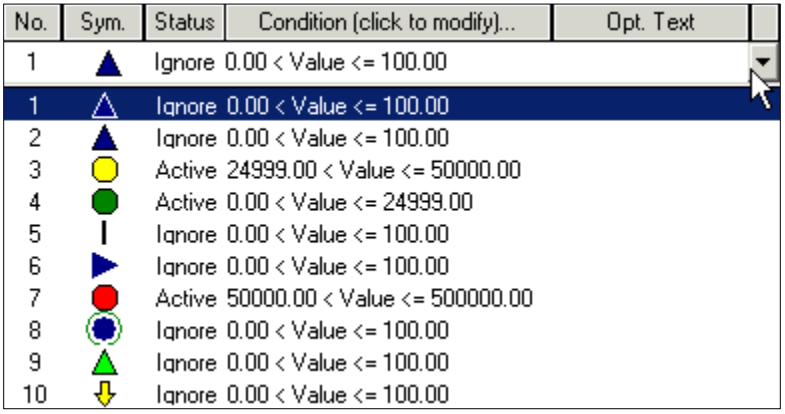
1. Choose **Insert** | **Column** | **Values**.
2. The **Indicators for Values Column** dialog box appears, as shown. This is where you choose which indicators appear based on the value in each column cell.
3. To create a Values SmartColumn without indicators, click **OK**.
4. For **Column to compare**, the newly inserted column *No Name Assigned* should already be selected.


Indicators for Values Column
Set the Indicator settings for this Values column. Check "Do not display indicator symbols" to suppress Indicator Symbols
Value Indicators
Column to compare:
10: No Name Assigned.
Symbol size:
1.00
Align Symbol in Center
Display numerical value also.
Do not display indicator symbols
Interpret value from compare column as a % and use the Percent symbol (type 97)
Values between 0 and 1 represent the percentage
Values between 0 and 100 represent the percentage
Percent Symbol:
Pick indicator symbology based upon the following conditions:
No.
Sym.
Status
Condition (click to modify)...
Opt. Text
1
Ignore 0.00 < Value <= 100.00
Note: If you move, add, or delete any columns, be sure to come back to this screen and make sure that the proper columns are still selected.
Show result as a percent (result*100 with % sign added)
When shown in Summary Bar, show average instead of total
Just add a % sign after value
On Summary Lines show value in cell. Override Summary Bar settings
OK
Cancel
Help

- Or, choose an existing column that contains numbers or text to display indicators based on those values.

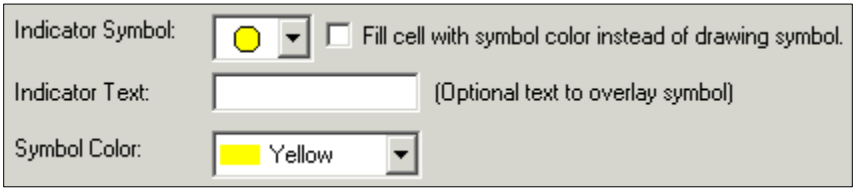
5. **Display numerical value also** to show the entered values, as shown above.

   Display numerical value also to only show the symbol indicator based on the entered values (the values will be hidden).
6. Align the indicator symbols as a left, center, or right position in the column cell.
7. **Pick indicator symbology based upon the following conditions** to display symbols, text, and/or color based on the column values.
8. You can now choose a **Symbol size**.
9. Click the drop-down arrow to view 10 active/ignored indicators and their conditions.


No.
Sym.
Status
Condition (click to modify)...
Opt. Text
1 Ignore 0.00 < Value <= 100.00
1 Ignore 0.00 < Value <= 100.00
2 Ignore 0.00 < Value <= 100.00
3 Active 24999.00 < Value <= 50000.00
4 Active 0.00 < Value <= 24999.00
5 Ignore 0.00 < Value <= 100.00
6 Ignore 0.00 < Value <= 100.00
7 Active 50000.00 < Value <= 500000.00
8 Ignore 0.00 < Value <= 100.00
9 Ignore 0.00 < Value <= 100.00
10 Ignore 0.00 < Value <= 100.00

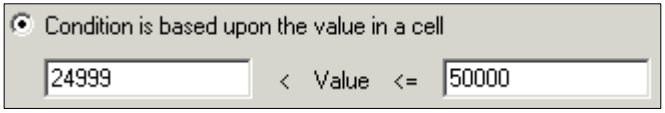
- Any of these symbols can be changed to another symbol from the toolbox.
- All symbols are **Ignored** until you create a condition for them to appear, becoming **Active**.

10. Choose one of the ten symbols. The **Indicator Condition Settings** dialog box opens, as shown below:



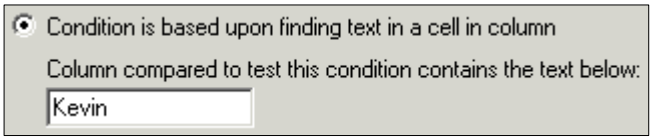
- Choose an **Indicator Symbol**. They are the symbols from the toolbox.
- OR, choose to **Fill the cell with the symbol color**, not the symbol itself.
- Optionally, enter **Indicator Text** to appear with the symbol or color fill.
- Choose the **Symbol Color** for the symbol or color fill.

11. The indicator can appear based on a value in the column cell.



- **Condition is based upon the value in a cell**.
- The indicator will appear when a cell's value is greater than the first value and less than/equal to the second value.
- Use neither commas nor currency signs when entering values.

12. The indicator can appear based on text in another column's cells. This would require a **Column to compare** reference (Step 4) which contains text.


Condition is based upon finding text in a cell in column
Column compared to test this condition contains the text below:
Kevin

- ⊙ **Condition is based upon finding text in a cell in column**.
- The indicator will appear when a cell contains specific text that you enter.

13. Choose **OK** to return to the **Pick indicator symbology based upon the following conditions** list.
14. Repeat Steps 9 - 13 to activate other indicators.
15. More options:

    ☑ **Show result as a percent** if you want the values multiplied by 100, with a % sign added (.35 becomes .35 x 100 = 35%).

    ☑ **When shown on Summary Bar, show average** if you want the summary row values to be an average of lower-level values instead of a sum.

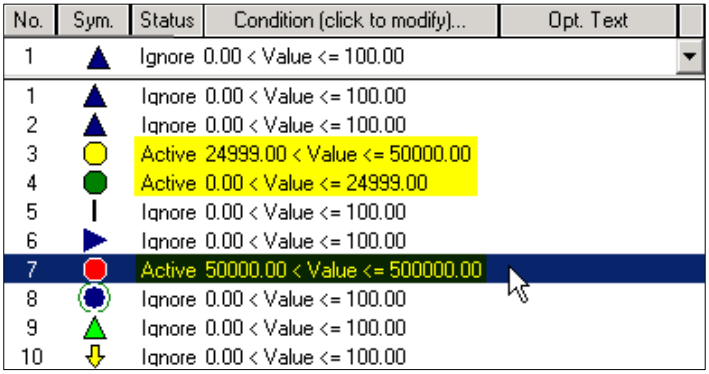
    ☑ **Just add a % sign after value** if you want to add % to the values (35 becomes 35%).

    ☑ **On Summary Lines show value in cell** if you want to override summary row values (which are normally sums or averages of lower-level values) with user-entered summary row values.

16. Choose **OK** to return to the **Column Properties** dialog box where you can add a column heading title and format the column data for currency, decimals, alignment, and other selections.
17. Finally, exit all dialog boxes. Enter values into the column cells and see the indicators appear accordingly.

In this example, three symbols are **Active** and will appear according to the set conditions.

In effect, the red symbol appears when the costs exceed $50,000; yellow for costs from $25,000 to $50,000; and green for costs that remain below $25,000.


No.
Sym.
Status
Condition (click to modify)...
Opt. Text
1 Ignore 0.00 < Value <= 100.00
1 Ignore 0.00 < Value <= 100.00
2 Ignore 0.00 < Value <= 100.00
3 Active 24999.00 < Value <= 50000.00
4 Active 0.00 < Value <= 24999.00
5 Ignore 0.00 < Value <= 100.00
6 Ignore 0.00 < Value <= 100.00
7 Active 50000.00 < Value <= 500000.00
8 Ignore 0.00 < Value <= 100.00
9 Ignore 0.00 < Value <= 100.00
10 Ignore 0.00 < Value <= 100.00

For extensive instructions and examples for Values SmartColumns, press the *Help* button in the *Indicators for Values Column* (Values SmartColumn) dialog box.

Enter values in the Values SmartColumn

Typically, values should be entered at the lowest outline level. Values can then be automatically summed on the summary levels.

1. Click the text tool in the toolbox T.
2. Click once in a column cell.
3. Enter the numerical value.
4. Use the up-arrow and down-arrow keys on your keyboard to move from cell to cell.

Summary Level Value Roll-up

Numbers in a Values SmartColumn, ValueSet SmartColumn and Calculation/Indicator SmartColumn can be automatically summed and displayed on summary task levels. Summary bars must be drawn for the values to appear, as instructed below.

To automatically total lower level values on summary lines:

1. Choose **Format** | **Summary Bar Settings**.
2. ☑ **Compute Rolled-Up Values for Value/Calc SmartColumns**.
3. ☑ **Always Draw** to have Milestones draw summary bars.

See Chapter 4 for more about outlining and summary bar controls.

Currency and Numbers Format

When a schedule is initially created and saved, the currency and number formats (based on *Regional and Language Options*) are saved and carried with the schedule. Thus, if numbers are originally set to display with a comma as the grouping symbol, then they will continue to display as such, even if the schedule is displayed on a system where the default separator is a period.

For example, if a Milestones user in the UK who is using pounds for currency sends a Milestones schedule to someone in the United States who is using dollars for currency, then the Milestones schedule will retain the pounds setting.

In another example, if a Milestones user in the UK who is using a comma as the Decimal Symbol sends a Milestones schedule to someone in the United States who is using a period as the Decimal Symbol, then the Milestones schedule will retain the comma as the Decimal Symbol.

In previous Milestones versions, numbers displayed in Values SmartColumns and ValueSet SmartColumns did not display grouping separators, such as commas. To retain this setting found in previous versions, choose *Tools* | *Options* | *Edit*, and uncheck *Use current regional settings to format numbers*. Unchecking this default setting will, for example, display a number as 10000 instead of 10,000.

Number and currency settings apply to the current schedule only.

Change the number format and number grouping options

1. Choose **Format** | **International** | **Number Format**.
2. Select from the display settings options:
    - Leading zeros
    - Negative Number Format
    - Decimal Symbol
    - Digit grouping symbol
    - Digit grouping

Change the number of decimal places displayed in a column

1. Double-click the column heading of the column containing the values.
2. Choose the **Column Formatting** tab.
3. Next to **Decimals** select a number from 0 to 5.

Display the currency symbol with a column's values

1. Double-click the column heading of the column containing the values.
2. Choose the **Column Formatting** tab.
3. **Display Values as Currency**.

Change the currency symbol and other currency formats

1. Choose **Format** | **International** | **Currency Format**.
2. Select from the display settings options:
   - Currency Symbol, enter up to four characters (e.g. $)
   - Positive Currency Format
   - Negative Currency Format
   - Decimal Symbol
   - Digit grouping symbol
   - Digit grouping

In the *Currency Format* dialog box, the *Positive Currency Format* and *Negative Currency Format* options show the $ symbol in the examples, yet will use the *Currency Symbol* entry when applied to the schedule.

Percent Complete SmartColumns

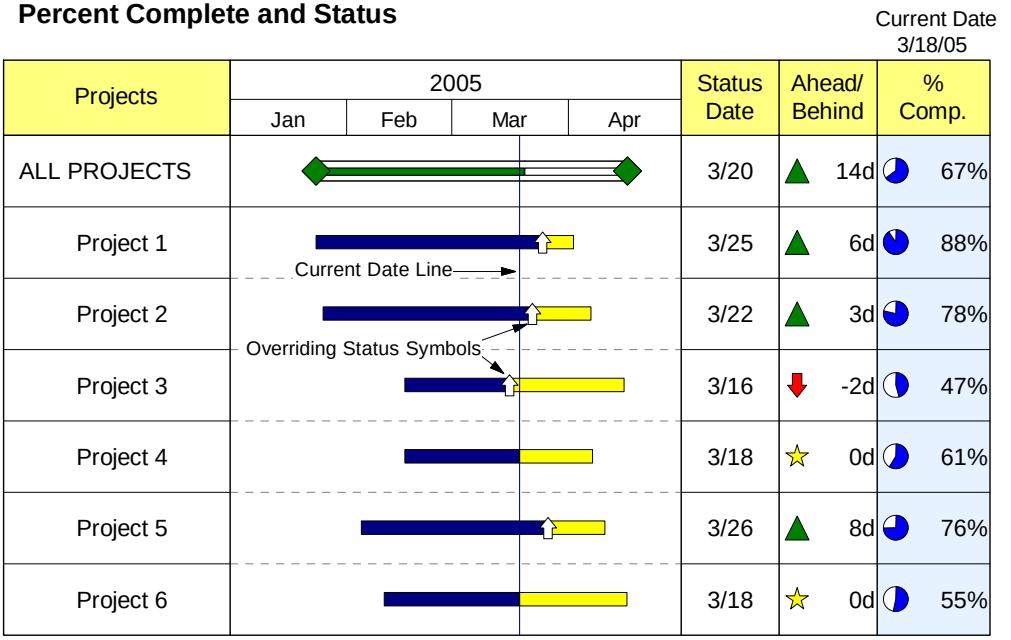
The Percent Complete SmartColumn displays the completed portion of each activity as a value, based on an activity's completed duration divided by its total duration. By default, percent complete or "progress" is based on the current date. A status symbol added to a task row will override the current date as the status driver. Create a Percent Complete SmartColumn to display the percent complete value, the percent complete pie, or both.

Percent Complete SmartColumn example

By default, the current date line drives the percent complete values. In the example below, the status symbol (here, the arrow) overrides the percent complete values to show activities which are ahead or behind schedule.

The completed portion of each connector bar is filled with a selected color (to the left of the status symbol or current date line). The to-be-completed portion of each connector bar is filled with another color (to the right of the status symbol or current date line). The percentage value is also displayed in pie format.

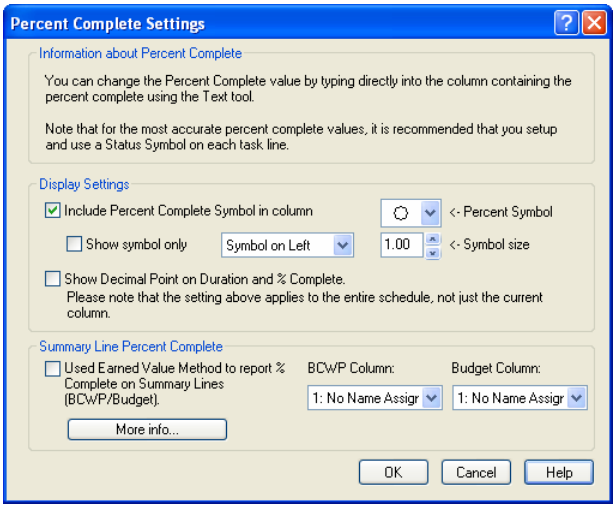
Percent Complete and Status



Create a Percent Complete SmartColumn

1. Choose **Insert** | **Column** | **Percent Complete**.

   The **Percent Complete Settings** dialog box appears, as shown:


Percent Complete Settings
Information about Percent Complete
You can change the Percent Complete value by typing directly into the column containing the percent complete using the Text tool.
Note that for the most accurate percent complete values, it is recommended that you setup and use a Status Symbol on each task line.
Display Settings
Include Percent Complete Symbol in column
<- Percent Symbol
Show symbol only
Symbol on Left
1.00
<- Symbol size
Show Decimal Point on Duration and % Complete.
Please note that the setting above applies to the entire schedule, not just the current column.
Summary Line Percent Complete
Used Earned Value Method to report % Complete on Summary Lines (BCWP/Budget).
BCWP Column:
Budget Column:
1: No Name Assigr
1: No Name Assigr
More info...
OK
Cancel
Help

2. **Include Percent Complete Symbol in column** to display the percent complete pie.
3. **Show symbol only** to hide the percent complete value and display the pie, only.
4. Value and pie formatting options:
   - If the **Percent Symbol** is not the shape as show above, Milestones will automatically convert a symbol to this shape.
   - Choose a **Symbol Size** for the percent pie.
   - Choose left, right or center alignment for the pie symbol.
   - **Show Decimal Point on Duration and % Complete** for detailed percent complete values.
5. *Summary Line Percent Complete* options:
   - **Use Earned Value method** and select existing columns which contain the **BCWP Column** values and **Budget Column** values.
   - Choose the **More info** button for an extended explanation and additional schedule formatting instructions.
6. Choose **OK** to return to the **Column Properties** dialog box where you can add a column heading title and format the column data.

For extensive instructions and examples for Percent Complete SmartColumns, press the *Help* button in the *Percent Complete Settings* (Percent Complete SmartColumn) dialog box.

Duration SmartColumn

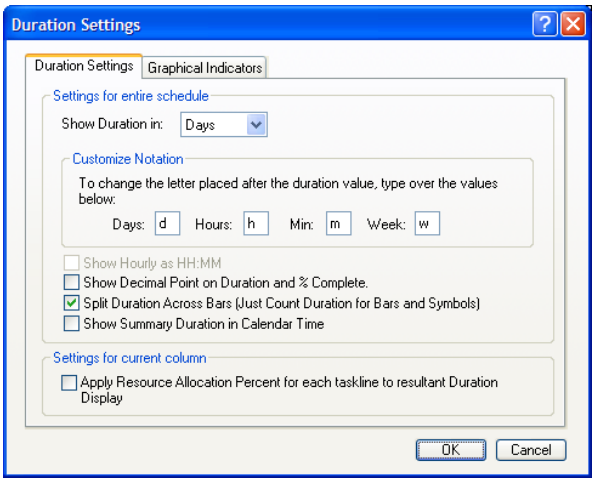
A Duration SmartColumn can be used to show the amount of time worked. The duration value can be shown in minutes, hours, days or weeks. Optionally, indicator symbols, text and colors can appear based on the duration values.

Create a Duration SmartColumn

1. Choose **Insert** | **Column** | **Duration**.
2. Choose the **Duration Settings** tab.

   The duration format settings are global for all duration SmartColumns (e.g., Duration, Baseline Duration, Time Ahead/Behind, Used Duration, Remaining Duration).

   This format can be changed as you add any duration SmartColumn, or under *Format* | *Duration Display Settings*.


Duration Settings
Duration Settings
Graphical Indicators
Settings for entire schedule
Show Duration in:
Days
Customize Notation
To change the letter placed after the duration value, type over the values below:
Days: d
Hours: h
Min: m
Week: w
Show Hourly as HH:MM
Show Decimal Point on Duration and % Complete.
Split Duration Across Bars (Just Count Duration for Bars and Symbols)
Show Summary Duration in Calendar Time
Settings for current column
Apply Resource Allocation Percent for each taskline to resultant Duration Display
OK
Cancel

   Duration Settings options:

   - **Show Duration in**: Choose days, hours, minutes or weeks.
   - **Customize Notation**: You may change the letter notation next to the duration values.
   - ☑ **Show Hourly as HH:MM** to display duration in hours and minutes as HH:MM. For example, 47:17 as 47 hours and 17 minutes.
   - ☑ **Show Decimal Point on Duration and % Complete** to display duration SmartColumn values with two decimal places and Percent Complete SmartColumns values with one decimal place.
   - ☑ **Split Duration Across Bars** to count only the bars' and symbols' duration amounts.
   - ☐ **Split Duration Across Bars** to count duration from the first symbol on the task line to the last symbol on the task line, which may include non-working “gaps” between activities.
   - ☑ **Show Summary Duration in Calendar Time** to display the duration of the summary bar, not the total of lower task lines' duration values.

- **Apply Resource Allocation Percent** to display the duration value as duration [x] the resource allocation percent. For example, if the duration is 10 days and the resource allocation percent is 50%, then the displayed value will be 5 days. Note that this option does not apply to the Remaining Duration SmartColumn.

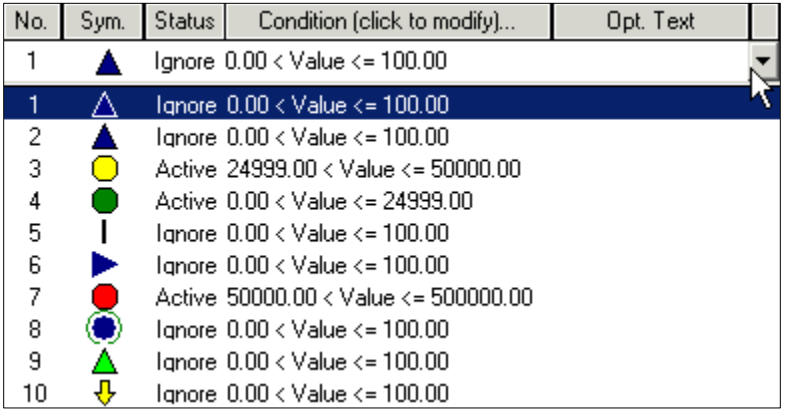
3. Optionally, choose **Graphical Indicators** to appear based on the Duration SmartColumn values. See the next section for instructions, Step 3.
4. Choose **OK** to view the **Column Properties** dialog.
5. Make any changes under the **Column Heading** and **Column Formatting** tabs.

Graphical Indicators for duration SmartColumns

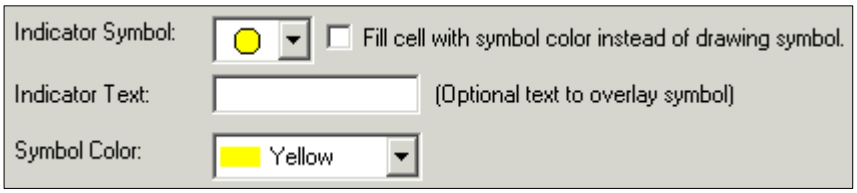
While the *Duration Settings* apply to all duration SmartColumns, the *Graphical Indicator* settings apply to individual duration SmartColumns (e.g., Duration, Baseline Duration, Time Ahead/Behind, Used Duration, Remaining Duration).

To display symbols, text or colors based on duration values:

1. For the appropriate column, double-click the column heading and choose the **Column Type (SmartColumn) Settings** tab.
2. Choose the **Additional SmartColumn Properties** button.
3. Select the **Graphical Indicators** tab. This is where you can choose which indicators appear based on the duration values in each column cell.
4. **Pick the indicator symbology based upon the following conditions** to display symbols, text, and/or color based on the duration values.
5. Click the drop-down arrow to view 10 active/ignored indicators and their conditions. All indicators are **Ignored** until you create a condition for them to appear, becoming **Active**.

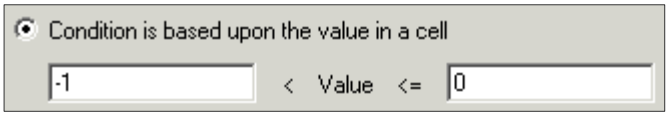

No.
Sym.
Status
Condition (click to modify)...
Opt. Text
1 Ignore 0.00 < Value <= 100.00
1 Ignore 0.00 < Value <= 100.00
2 Ignore 0.00 < Value <= 100.00
3 Active 24999.00 < Value <= 50000.00
4 Active 0.00 < Value <= 24999.00
5 Ignore 0.00 < Value <= 100.00
6 Ignore 0.00 < Value <= 100.00
7 Active 50000.00 < Value <= 500000.00
8 Ignore 0.00 < Value <= 100.00
9 Ignore 0.00 < Value <= 100.00
10 Ignore 0.00 < Value <= 100.00

6. Choose one of the ten symbols. The **Indicator Condition Settings** dialog box opens, as shown below:



   - Choose an **Indicator Symbol**. They are the symbols from the toolbox.
   - OR, choose to **Fill the cell with the symbol color**, not the symbol itself.
   - Optionally, enter **Indicator Text** to appear with the symbol or color fill.
   - Choose the **Symbol Color** for the symbol or color fill.

7. **Condition is based upon the value in a cell** and enter numbers to establish a value range.



   - The indicator will appear when a task's duration is greater than the first value and less than/equal to the second value.

8. Choose **OK**, to return to the **Pick the indicator symbology based upon the following conditions** list.
9. Repeat steps 5 through 8 to display other indicators.
10. Other display options:
    - Choose a **Symbol size** for the indicator symbols.
    - **Display numerical value also** to show the duration values.
    - Align the indicator symbols as a left, center, or right position in the column cell.
11. Choose **OK** to return to the **Column Properties** dialog box where you can add a column heading title and format the column data.

Factors which impact duration computation

- The workday start and end times affect hourly duration values.
- Whether or not Saturdays and Sundays are set as working days.
- Holidays that you might have indicated.

Resource Allocation Percent SmartColumn

Control the effort of a resource assigned to a particular task by using a resource allocation percentage. The resource allocation value can be entered in the Resource Allocation Percent SmartColumn or in any cell on the appropriate task line.

According to the Duration SmartColumn Settings, the resource allocation percent will or will not be applied to the Duration SmartColumn's values.

Create a Resource Allocation Percent SmartColumn

1. Choose **Insert** | **Column** | **Resource Allocation Percent**.
2. Double-click the new column's heading.
3. Under the **Column Heading** tab, enter a column title.
4. Choose **OK**.

Enter a Resource Allocation Percent

1. Click in the toolbox.
2. Click once in the Resource Allocation Percent SmartColumn cell for the appropriate task line.
3. Enter a value.

—or—

1. In the toolbox, click the arrow tool .
2. Double-click a column cell on the task line whose resource needs an allocation percent (do not choose a Duration SmartColumn cell).
3. Choose the **Task/Row Settings and Info** tab.
4. Enter a value, as shown:

Resource Allocation Percent example

In the example below, "% of Resource Allocation" is a Resource Allocation Percent SmartColumn. Amy will be working on Task 1, 50% of the time, and Task 2, 50% of the time. This does not change the durations of the tasks, yet better indicates the resource's effort needed to complete the tasks. Thus, the overall usage of this resource is 100% for this time period.

Here, the "Allocated Duration" column is a Duration SmartColumn.

This SmartColumn can be set to apply the resource allocation percent to the duration value or to display the normal duration value.

Project / Task	PM / Employe	2001 Jan Feb Mar Apr	% of Resource Allocation	Allocated Duration
Project A	Bobby		100%	62d
Task 1	Amy	40d	50%	20d
Task 2	Amy	40d	50%	20d
Task 3	Katie	44d	100%	44d
Task 4	Johnny	31d	100%	31d

Symbol Count SmartColumns

The Symbol Count SmartColumn reports the number of symbols on a task line.

For example, if the symbols on a line represent a certain kind of event, then the number of events can be easily reported in the SmartColumn.

Location	Floods	2000 Jan Feb Mar Apr May Jun
Travis County	6	1/22 2/12 3/6 3/18 4/6 4/25
Hays County	3	3/17 4/7 4/24
Marion County	2	4/18 5/12
Howard County	2	5/2 5/24
Santa Clara County	3	1/14 1/30 2/14
Madison County	2	2/22 3/5

More SmartColumns

For information about ValueSet SmartColumns, see page 14-18.

For extensive instructions on other SmartColumns, choose *Help* | *Milestones Professional Help Topics*. Under the *Contents* tab, choose *SmartColumns*.

Appendix A: Installation and Activation

Single Workstation Install

To install Milestones Professional, insert the CD into your computer, click the **Install Software** button, and then click the **Install Milestones Professional 2004** button.

Or, double-click the installation file which was downloaded.

At this point the software installation begins.

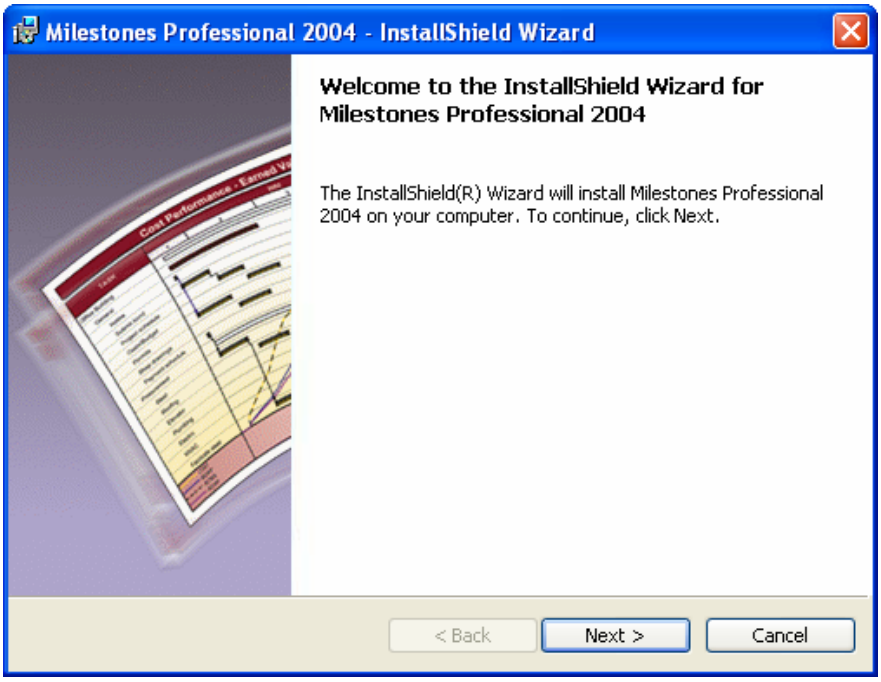
Welcome to the InstallShield Wizard

At any point you can stop the installation by pressing the **Cancel** button. All changes made up to that point will be reversed.

Click **Next** to continue.

Read the license agreement carefully. Choose to accept or not accept the terms in the license agreement.

Click **Next** if you accept the licensing agreement.


Milestones Professional 2004 - InstallShield Wizard
Welcome to the InstallShield Wizard for Milestones Professional 2004
The InstallShield(R) Wizard will install Milestones Professional 2004 on your computer. To continue, click Next.
< Back
Next >
Cancel

Customer Information

Enter the **User Name** and the user's **Organization**. If Organization does not apply to you, enter "None."

For **Serial Number**, enter the M2004- prefix, including the dash, and the seven numbers that follow.

For example, M2004-1234567

Trial Version users who do not have a Serial Number should enter "Eval."

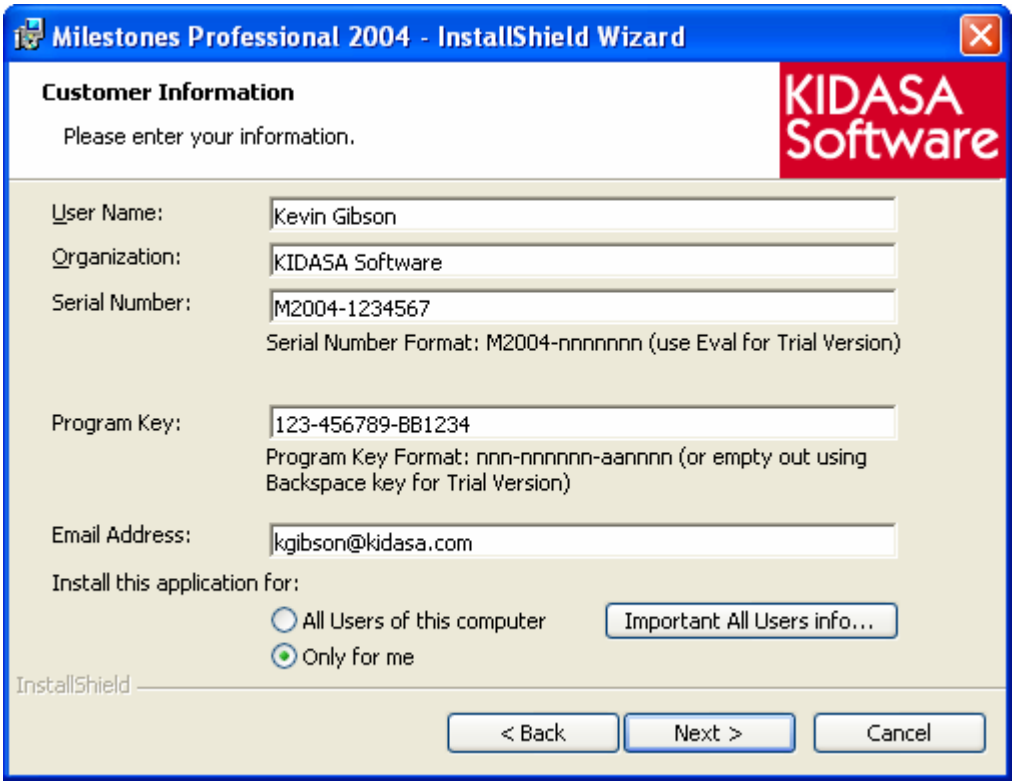
For **Program Key**, enter the three-section string of numbers and letters, including the dashes.

For example, 123-456789-AB1234

If you do not have a Program Key, delete everything in the Program Key slot including blank spaces, to continue.

Do not enter blanks.

Enter a valid **Email Address**.



Under **Install this application for**, most users should choose **Only for me**.

Under **Install this application for**, if you choose **All Users of this computer**, then all current and future users of this computer will be given access to Milestones Professional.

However, in order for this access to be possible, the Milestones Professional 2004.msi file must be available to these other users the first time they log on after you complete the installation.

If you select to install Milestones Professional for All Users of your computer, then the first time that other users log on to this computer after the installation is complete, the Windows Installer service will attempt to access the copy of the MSI file from which you installed Milestones Professional in order to complete the user-specific installation steps.

Therefore, to support this future need to access the Milestones Professional 2004.msi file, you should make sure that you do one of the following:

1. Make a copy of the Milestones Professional 2004.msi file on your network in a place that all users of this computer can access and then install from that copy.

—OR—

2. Install from the copy of Milestones Professional 2004.msi on your Milestones Professional 2004 CD and then make sure that current and future users of this computer have access to the CD.

In an All Users installation, it is very important that Milestones be started by an Administrator so that the Activation step can be accomplished. Any Restricted Users, i.e. users assigned only to the Users group, would not be able to successfully Activate Milestones since they do not have access to the section of the registry that holds the Activation key.

All User installations should only be done on Windows XP, Windows 2000, and Windows NT. All Users installations should not be done on Windows 95, Windows 98, or Windows ME.

Click **Next** to continue.

Setup Type

Click **Complete** to install all program features in the default location under Program Files/KIDASA.

Choose **Custom** to select another installation location.

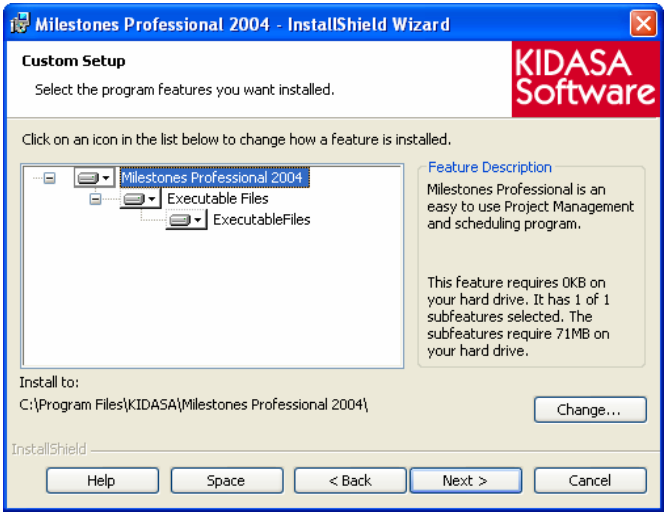
Click **Next** to continue.

Milestones Professional 2004 - InstallShield Wizard
Setup Type
Choose the setup type that best suits your needs.
KIDASA Software
Please select a setup type.
Complete
All program features will be installed. (Requires the most disk space.)
Custom
Choose which program features you want installed and where they will be installed. Recommended for advanced users.
InstallShield
< Back
Next >
Cancel

Custom Setup

Click the **Change** button to select a destination folder for installation.

The default is usually the preferred folder to use.


Milestones Professional 2004 - InstallShield Wizard
Custom Setup
Select the program features you want installed.
KIDASA Software
Click on an icon in the list below to change how a feature is installed.
Milestones Professional 2004
Executable Files
ExecutableFiles
Feature Description
Milestones Professional is an easy to use Project Management and scheduling program.
This feature requires 0KB on your hard drive. It has 1 of 1 subfeatures selected. The subfeatures require 71MB on your hard drive.
Install to:
C:\Program Files\KIDASA\Milestones Professional 2004\
Change...
InstallShield
Help
Space
< Back
Next >
Cancel

Click **Next** to continue.

Ready to Install the Program

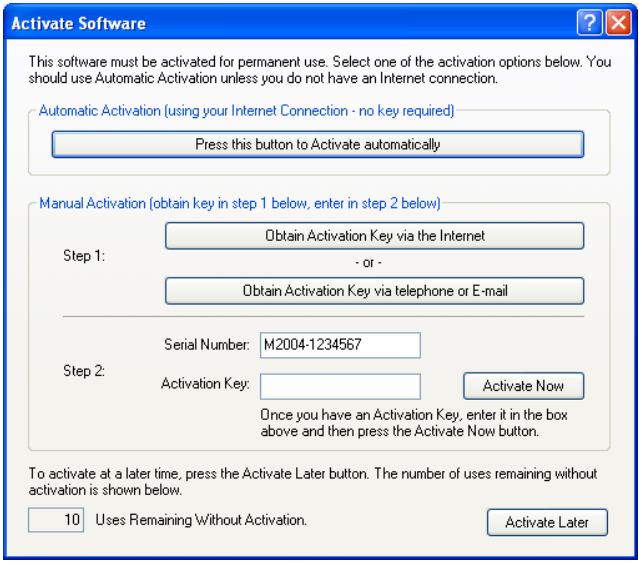
Click the **Install** button to proceed with the installation.

Milestones Professional 2004 - InstallShield Wizard
Ready to Install the Program
The wizard is ready to begin installation.
KIDASA Software
Click Install to begin the installation.
If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.
InstallShield
< Back
Install
Cancel

Activating the software

Once Milestones is installed and when you first start-up Milestones, you will be prompted to activate the software either automatically or manually retrieve and enter an Activation Key.

The Activation Key will be in this format: A1234-5678.


Activate Software
This software must be activated for permanent use. Select one of the activation options below. You should use Automatic Activation unless you do not have an Internet connection.
Automatic Activation (using your Internet Connection - no key required)
Press this button to Activate automatically
Manual Activation (obtain key in step 1 below, enter in step 2 below)
Step 1:
Obtain Activation Key via the Internet
- or -
Obtain Activation Key via telephone or E-mail
Step 2:
Serial Number:
M2004-1234567
Activation Key:
Activate Now
Once you have an Activation Key, enter it in the box above and then press the Activate Now button.
To activate at a later time, press the Activate Later button. The number of uses remaining without activation is shown below.
10
Uses Remaining Without Activation.
Activate Later

Automatic Activation

If your computer is connected to the Internet, then you can use this easy option.

1. Click **Press this button to Activate automatically**.
2. Using your Internet connection, an Activation Key is automatically retrieved and entered into the registry. Click **OK** when the **Activation Successful** message appears.

If you receive an error or your firewall prevents this automated action, then use the *Manual Activation* procedure as described below.

Manual Activation

If your computer is connected to the Internet, then you can manually retrieve an Activation Key from the KIDASA web site. Or, call or e-mail KIDASA Software to request an Activation Key.

1. Click **Obtain Activation Key via the Internet**.
2. Your internet **browser** will launch, automatically go to the KIDASA web site, and display your Activation Key.
3. Enter the Activation Key in the **Activation Key** slot.
4. Press **Activate Now**.

If this fails, call 512-328-0167 or e-mail us at activate@kidasa.com.

You may choose **Activate Later** up to 10 times before the software is disabled.

Using the Node Installation Program

If you are planning to run Milestones from a server, you first need to run the Single Workstation Installation as described in the previous sections on the server that will be hosting the Milestones Professional files, and then run the following Node Installation procedure on each workstation that will be running Milestones Professional.

Note that you can also run Single Workstation installs on each of the workstations that you have licensed if you choose and have no files on your server. If this is the case, then run the Single Workstation installation on each of your workstations (up to the number that you have licensed and do not run the Node Installation program).

The purpose of the Milestones network Node installation program is to enable you to run Milestones from a network server. However, you still need to license a copy of Milestones for each individual user that has access to the software.

In most cases, KIDASA does not recommend that you run Milestones this way because of the increased traffic on your local network and the possibly degraded performance that you will see.

All the Network Node Installer does is create a shortcut on a local computer to an already installed copy of the software on a network server and create the registry entries needed on the local computer to enable full use of the Milestones software.

In order to install, you need to either modify the MSI file using the milesmstnode.exe program in order to set the default for the INSTALLDIR property, or use the MSIEXEC program with a command line override for the INSTALLDIR property.

Because the MSI file that is used to do the Network Node install needs to be modified before use, it cannot be installed directly from the CD.

Please use the following steps to create an MSI file that can be used to install a network node of Milestones.

Using milesmstnode.exe

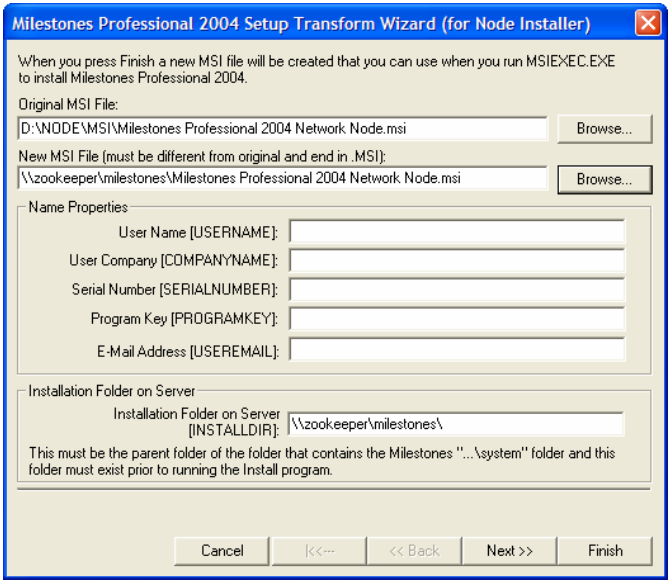
Step 1: Run the milesmstnode.exe from the \Node\Tools and Docs\ folder on the Milestones CD

In this program you need to identify the **Original MSI File** and the **New MSI File**.

The original MSI file will be on your CD or wherever you copied it.

The new MSI file will be on your server. It needs to be in a folder that is accessible to any computer that needs to run the Milestones Network Node installer.

You can also fill out the **User Name** and the other fields if you like.


Milestones Professional 2004 Setup Transform Wizard (for Node Installer)
When you press Finish a new MSI file will be created that you can use when you run MSIEXEC.EXE to install Milestones Professional 2004.
Original MSI File:
D:\NODE\MSI\Milestones Professional 2004 Network Node.msi
Browse...
New MSI File (must be different from original and end in .MSI):
\\zookeeper\milestones\Milestones Professional 2004 Network Node.msi
Browse...
Name Properties
User Name [USERNAME]:
User Company [COMPANYNAME]:
Serial Number [SERIALNUMBER]:
Program Key [PROGRAMKEY]:
E-Mail Address [USEREMAIL]:
Installation Folder on Server
Installation Folder on Server [INSTALLDIR]:
\\zookeeper\milestones\
This must be the parent folder of the folder that contains the Milestones "...\system" folder and this folder must exist prior to running the Install program.
Cancel
|<<---
<< Back
Next >>
Finish

You should leave the **Serial Number** and **Program Key** fields empty since each installation of the software requires a unique serial number.

The **Installation Folder on Server** box must be filled out with the network name of the folder that holds the new MSI file. The Windows Installer verifies that this installation target folder exists and is accessible before it will let the install begin, so it is important that this entry is correct.

Step 2: Run the new MSI file (that you created on your server) from the computers that need to use Milestones from your server

At this point the install runs like any other MSI installation, the end result being a new icon on the Start/Programs menu for Milestones.

USING msiexec command line override

If you would rather not modify the MSI file, then you can override the INSTALLDIR property or any of the other public properties via the MSIEXEC command line as shown below:

msiexec /i "d:\node\msi\Milestones Professional 2004 Network Node.msi" INSTALLDIR=\\zookeeper\milestones

Appendix B: Quick Reference Tables

Scheduling Basics

TO ADD OR SET:	DO THIS:
Project activities or other column text	Click the T tool. Click in a column cell and begin typing.
Symbol	Click the + tool. Click once on the symbol to add, click with the mouse in the schedule area, and drag.
Horizontal connection between two symbols	Click the + tool. Click once on the left-most symbol on the schedule. Click once on the connector type in the toolbox. Then, click once on the right-most symbol on the schedule.
Vertical connection	Click the + tool. Click once on the "from" (top) symbol. Click once on the vertical connector type in the toolbox. Then, click once on the "to" (bottom) symbol.
Many vertical connections at once	Click the ↖ tool. Hold the Ctrl key and click once on each task line whose symbols will be connected vertically. Choose *Insert* | *Vertical Connection(s)*.
Task line, in-between two existing task lines	Click the ↖ tool. Select the task line above which you want to insert the new line. Choose *Insert* | *Task Line*.
Current date line	Click *Dates* on the *Format* menu. Then, click *Current Date.*
Date headings	Click . Or, click *Dates* on the *Format* menu. Then click *Headings.* Or, right-click the date headings and then click *Properties*.
Start and/or end date for the schedule	Click . Or, click *Dates* on the *Format* menu. Then click *Schedule Details.* Or, right-click the date headings and then click *Date Range.*

Scheduling Basics

TO ADD OR SET:	DO THIS:
To turn on date sensitivity	Click *Dates* on the *Format* menu, then on *Symbols – Fill to Status Date.* Repeat for *Connectors – Fill to Status Date.* This causes bars and/or symbols to display an "after-status" fill color after the current date.
Progress of a task line using a status symbol	Add a status symbol by double-clicking on one of your toolbox symbols and clicking the *Status Symbol* option. Add the symbol on any task line to adjust the task's progress.
Constraint date for a symbol	Click the tool. Right-click the symbol, then click *Edit Constraint*.
Set up a column for indenting	Double-click the column heading. Under the *Column Formatting* tab, enter a value in inches (0.3 for example) for *Space per outline level to indent column text.*
Change the outline level of task line(s)	Click the tool. Select the task line you want to indent or outdent. To indent: click , or press the *Tab* key, or press the right arrow on the keyboard while holding down the *Alt* and *Shift* keys. To outdent: click , or press the *Tab* key while holding down the *Shift* key, or press the left arrow on the keyboard while holding down the *Alt* and *Shift* keys.
Roll up all tasks to a certain level	Right-click a task that is at the level you want to roll all tasks to. Then click *Collapse All Tasks to Selected Level.*
Work and display weekends	Click . Or, click *Dates* on the *Format* menu. Then click *Schedule Details.* Click the *Weekly/Daily* tab.
Work-week starting day	Click . Or, click *Dates* on the *Format* menu. Then click *Schedule Details.* Click the *Weekly/Daily* tab.

Scheduling Basics

TO ADD OR SET:	DO THIS:
Color themes	Choose *Format* | *Apply a Color Theme* to apply pre-formatted background coloring to the schedule. Choose *Format* | *Manage Color Themes* to save a user-created color theme.
Date range override for single page	Click . Or, click *Dates* on the *Format* menu. Enter dates for *Current Page Override*.
Shading, gridlines, text and summary bars by outline level	Choose *Format* | *Set Outline Level Properties*.
Custom coloring for "after-status" fill-colors for symbols and connectors	In the toolbox, double-click the symbol or connector. For symbols, click the *Color/Pattern/Size/Shadow* tab and then choose an *After Status Color*. For connectors, change the *After Status Fill Color*.
Page number format	Click the tool. Double-click the page number at the top left part of the schedule. If the page numbers are not displayed, choose *Format* | *Show Page Numbers*.
Workday hours	Click . Or, click *Dates* on the *Format* menu. Then click *Schedule Details.* Click the *Hourly/Minute* tab. **Allow Hourly Detail**, and then enter the working hours and the hours to display.
Fiscal year starting month	Click . Or, click *Dates* on the *Format* menu. Then click *Schedule Details.* Click the *Yearly/Monthly* tab.

Add Graphics, Text and Legend

TO ADD:	DO THIS:
Title	Select *Chart Title* on the *Insert* menu.
Freeform text	Click the T tool. Click in the area you want to place the text, and begin typing.
Text to a symbol	Click the T tool. Right-click the symbol on the schedule. Click the *Edit Text* option.
Symbol notes	Click the tool. Right-click the symbol on the schedule, then *Edit Notes*. Symbol notes can be viewed by hovering over the symbol, or choose *Tools* | *Reports* | *Symbol Notes*. With the *Include Symbol Notes Page* printing option, symbol notes will print on pages separate from the printed schedule.
Current date, system date, page number, max page number, or filename as free-form text	Click the T tool. Click on the schedule and type: &date for the current chart date &sysdate for the computer date &curpage for the current page number &maxpage for the maximum page # &filename for the name of the chart &systime for the computer time
Line, box or circle	Click the (line) tool, the (box) tool or the (circle) tool, and then click-and-drag on the schedule to add a line, a box or a circle.
Legend	Click *Legend* from the *Format* menu and enter 1.0 (or more) for *Legend Height*.
Legend entry	Select *Legend Entry* from the *Insert* menu.
Graphic	Click *Picture* from the *Insert* menu. Or, copy the graphic to the clipboard from another application. Then, click *Paste Picture* from the *Edit* menu. Note: To convert a graphic file to an embedded graphic, right-click the graphic, then click *Convert to Embedded.*
Column heading text	Double-click a column heading.

Format the Schedule

TO ADD OR CHANGE:	DO THIS:
Chart size	Click . Or, select *Page Layout* from the *File* menu. Click the *Chart Size and Margins* tab.
Number of task rows per page	Click . Or, select *Page Layout* on the *File* menu. Then, click the *Columns and Rows* tab.
Page to a schedule	Click *New Page* from the *Insert* menu. Choose *Before Current Page* or *After Last Page*.
Column	Click *Column* on the *Insert* menu. Or, click , choose the *Columns and Rows* tab, and then enter the widths for up to 20 columns.
Background color or frame options	Click *Frame/Border/Background* on the *Format* menu.
Margins	Click . Or, select *Page Layout* on the *File* menu and then click the *Chart Size and Margins* tab.
Column width	Click the tool. Click-and-drag on the column edge with your mouse. The cursor will change to at the column edge.
Date format for symbol dates	Click *Symbol Date Format* on the *Format* menu.
Date headings	Double-click on the date headings. Or, click *Dates* on the *Format* menu, then click *Headings.*
Gridlines between task rows	Click *Gridlines, Shading, and Curtains* on the *Format* menu and choose *Horizontal*.
Task row shading	Click *Gridlines, Shading, and Curtains* on the *Format* menu and choose *Horizontal*.
Curtains	Click *Gridlines, Shading, and Curtains* on the *Format* menu and choose *Curtains*.
Holiday and weekend shading	Click *Gridlines, Shading, and Curtains* on the *Format* menu and choose *Weekend and Holiday Shading*.

Format the Schedule

TO ADD OR CHANGE:	DO THIS:
Default symbol date and text location for a symbol in your toolbox	Double-click the symbol in the toolbox. Click the *Text and Date Properties* tab.
Default symbol size	Click *Symbol Size* on the *Format* menu.
SmartColumns	Double-click on the column heading area. Click the *Column Type* (*SmartColumn) Settings* tab and choose one of the *SmartColumn Definitions*.
Default text styles	Click *Default Text Styles* on the *Format* menu.
A page break	Click the tool. Right-click the task line you want at the top of the next page, and then click *Insert Page Break.*
Default symbol text	Double-click the symbol in the toolbox. Click the *Default Text* tab. Enter text or choose a column and press *Insert*.

Make Changes

TO CHANGE:	DO THIS:
A legend entry	Double-click on the legend entry you want to change. To move a legend entry, first click the tool. Click on the legend entry, drag to the new location and drop.
A single connector on your schedule from one type to another type that is in your toolbox	Click the tool. Select the left-most symbol (or in the case of vertical connectors, select the symbol from which it originates). Click once on the new connector type in your toolbox.
Selected symbol(s) on your schedule from one type to another type that is in your toolbox	Click the tool. Select the symbol(s) to be changed (hold down *Shift* to select more than one symbol). Next, click once on the new symbol type in your toolbox.
All symbols or connectors of one type, on your schedule, to another type	Double-click the symbol or connector in your toolbox. Choose a new symbol type (shape).
The dates of a group of tasks linked with vertical connectors	Click *Dependency Mode* on the *Edit* menu. A check by Dependency Mode indicates that it is turned on. Then, use the tool to click-and-drag a symbol. All dependent symbols will move by the same amount.
The dates of all the tasks on your schedule	Click *Shift All Dates* on the *Edit* menu to shift all symbol dates forward or backward by a specified number of days.

Make Changes

TO CHANGE:	DO THIS:
Text size of an individual symbol or an individual task line's column text	Click the tool. Select the item to be changed. Next, click *Selected Text Style/Size/Color* on the *Format* menu.
Individual symbol color	Click the tool. Select the symbol on the chart and then choose a new color from the color selection box on the toolbar.
Height of individual task lines	Click *Options* on the *Tools* menu. Then click the *Edit* tab. Make sure that *Allow Task Line Height Adjustments* is . Click the tool. Click-and-drag the light blue line guide (or gridline if you are using gridlines) at the bottom of your task line and within the column area. The cursor will change to a . Release to resize.
Summary bar preferences	Click *Summary Bar Settings* on the *Format* menu. Choose how and when you want the Summary Bars to appear. Also, choose the symbols and connector to use for summary bars.
The date of a symbol	Click the tool. Then click-and-drag the symbol on the schedule. Or, double-click on the symbol you want to change. Enter a new date. Or, click the tool. Click once on the symbol on the schedule and release the mouse button. Hold down the *Shift* key and press the left or right arrow keys.

Delete Items

TO DELETE:	DO THIS:
Symbol(s)	Click the tool. Select the symbol to be deleted. Press the *Delete* key. To delete several symbols at once, hold down the *Shift* key while selecting the symbols. Then press the *Delete* key.
Horizontal connector(s)	Click the tool. Right-click the symbol on the left most end of the connector. Click *Clear Horizontal Connections (Bars)*.
Vertical connector(s)	Click the tool. Right-click the starting symbol for the vertical connector. Click *Clear Vertical Connections*.
Task line(s)	Click the tool. Right-click a task line. Then click *Delete Task*. To delete several task lines, hold down the *Shift* key while selecting the task lines and then press the *Delete* key. To delete several non-contiguous task lines, hold down the *Ctrl* key while selecting the task lines and then press the *Delete* key.
Legend entry	Click the tool. Click once on the legend entry you want to delete. Press the *Delete* key.
Column	Click the tool. Select the column you want to delete (move the cursor to the lower edge of the column heading cell—the cursor changes to a downward pointing arrow—click once to select—the whole column highlights in black. Press the *Delete* key.
Page on your schedule	Click *Delete Current Page* on the *Edit* menu.

Customizing Milestones Professional

TO CUSTOMIZE:	DO THIS:
The starting template	Create the format you need, including customization of your toolbox and page layout. Click *Save As* on the *File* menu. Next, click *Personal Template.* Save the schedule with the name *default.mtp*. From now on every time you click , a blank schedule template using your format and toolbox settings will be displayed.
The default file locations	Click *Options* on the *Tools* menu. Next, click the *Folders* tab. Click the *Browse* button to set the default locations.
A connector in your toolbox	Double-click on a horizontal or vertical connector in the toolbox.
A symbol in your toolbox	Double-click on a symbol in the toolbox.
The toolbox size, other options	Right-click the toolbox and choose *Toolbox Properties*. Select the number of symbol/connector/symbol combinations, and other options.
The sidebar	Choose *Tools* | *Customize* | *Sidebar Options*. Changes to the "Show" and "Do not show" options require you to close and restart Milestones.
The toolbar	Click *Customize* on the *Tools* menu. Then, click *Toolbar*. Or, right-click a blank area of the toolbar and then click *Customize Toolbar*.
Month and week day names	Click *International* on the *Format* menu. Choose from *Month Names*, *Weekday Names*, and *Page n of n*.

Work with Other Applications

TO DO THIS:	DO THIS:
Copy a picture of the schedule to a document	Click *Copy Metafile to Clipboard* on the Milestones Professional *Edit* menu. In your other application, click *Paste Special*. Choose *Enhanced Metafile*.
Embed a schedule into another document	Click *Copy Schedule to Clipboard (OLE)* on the Milestones Professional *Edit* menu. In your other Windows application, click *Paste Special*. Or, to embed a schedule using drag-and-drop, click once on . Move the mouse over to your other application's window and click again. Or, locate the schedule using Windows Explorer. Click and drag the schedule name to the other application's window and release.
Copy a schedule with a transparent background	Before copying the schedule to the clipboard, click *Frame/Border/Background* on the *Format* menu. Uncheck *Include on Prints and Metafiles*.
Export schedule pages as graphics (JPG, PNG, BMP or GIF files)	Click *Export Graphics* on the *File* menu. Click *Export Bitmap File.*
Copy schedule information from another application	Select and copy data from a spreadsheet, document table, or database table to the clipboard. In Milestones Professional choose *File* | *Import Data* | *Custom Import From Clipboard*.
Import information from a file	Click *Import Data* on the *File* menu.

Print Your Schedules

TO DO THIS:	DO THIS:
Print the schedule using the default settings	Click on the toolbar.
Print the schedule and choose options	Click *Printing Options* on the *File* menu. [Options are described below:]
Print a large chart on one sheet	In the *Printing Options* dialog box, choose *Scale to Fit Selected Paper Size.*
Print a large chart in "pieces"	In the *Print Options* dialog box choose *Use Specified Size.*
Enlarge a small schedule to fit on a larger paper size	In the *Print Options* dialog box, choose *Scale to Fit Selected Paper Size.*
Scale your schedule by horizontal and vertical scaling factors you set	In the *Print Options* dialog box, choose *Use Custom Scaling Specified.* Next, enter a scaling factor for *Horizontal* and *Vertical*.
Print color schedules on a black and white printer	In the *Print Options* dialog box, *Print Colors in Shades of Gray*.
Print all open schedules	Click *Print All* on the *File* menu.

Print Your Schedules

TO DO THIS:	DO THIS:
Set up your printer	Click or click *Printer Setup* on the *File* menu.
Exclude certain columns when printing	In the *Print Options* dialog box, choose the *Exclude Columns* tab. Check the columns to exclude from printing.
Print symbol notes on a separate page	In the *Print Options* dialog box, ☑ *Include Symbol Notes Page*. Or, choose *Tools* | *Reports* | *Symbol Notes*. Copy the notes to clipboard and paste into another application for printing.
Print your schedule by time period For example, one page for each month	In the *Print Options* dialog box, click the *Print by Date Range* tab. ☑ *Print Using the Time Periods Below*. Next, choose a frequency from the left list box and a time period from the right list box. For example choosing *3* and *months* will result in 3 month printing on each page for the date range specified.
Print a certain date range	In the *Print Options* dialog box, click the *Print by Date Range* tab. Click *Print Date Range Below Only*. Next, specify both a start date and an end date for the range you want to print.

Appendix C: Support and Where to Get More Information

Help Reference Information

Milestones Professional offers extensive reference information in an easy-to-use manner. In fact, the Milestones Professional Help Topics contains more detail than this manual.

To access the reference information, just choose **Help** | **Milestones Professional Help Topics**. Browse the **Contents**, or search for keywords under the **Index** and **Search** tabs. Help is well organized and extensive, giving you precise answers and instructions.

Online Support

Choose **Help** | **KIDASA Online Support** for a list of useful links to our website, including the main support page, sample schedules, our online Q&A database, the latest news, and more.

E-Mail Support

You can e-mail us at support@kidasa.com with any questions or suggestions that you may have. We try to answer e-mail questions 7 days a week.

Technical Support by Telephone

You can call us at 1-512-328-0168 between 8:30 am and 5:00 pm Central Time on normal workdays.

There is no charge for technical support.

Web Site

Our web site is at http://www.kidasa.com. It contains a significant amount of information: white papers, question and answer sections, movies, samples, additional documentation, and more.

Automation Help

Choose **Help** | **Automation Help** for everything you need to know for programming your own interface to Milestones.

Movies

Choose **Help** | **Online Movies** to go to our movies page on our website.

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